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RESILIENCE AMONG THIRD CULTURE KIDS ATTENDING AN  
INTERNATIONAL SCHOOL

By  
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Supervisors: Julie Rattray and Michael Fleming

A Thesis Submitted for the Degree of Doctorate of Education

School of Education  
University of Durham  
2006

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## ABSTRACT

The purpose of this study was to examine the influence of cross cultural experiences upon levels of resilience amongst Third Culture Kids (TCKs), ages 7-15, attending an international school in Singapore. TCKs have been defined as children who have spent a significant portion of their developmental years living abroad, sometimes transitioning to several countries and schools throughout their formative years. The researcher used a segment of the student population at the international school she was working at to test levels of resilience among students.

The data gathered was quantitative in nature. The research instrument used to measure levels of resilience was the Child's Perception of Resilience Checklist developed and adopted for the International Resilience Project. Demographics information about each participant was also collected using a Demographics Form designed by the researcher. Using the Exhaustive Chi-Square Automatic Interaction Detection Approach the researcher examined significant and important relationships between the TCK experience and levels of resilience.

Findings indicate that TCKs draw from three sources of resilience to help them cope with the adversities and stressors they encounter while growing up overseas. The three sources are based upon who and what these children HAVE around them, who these children ARE, and what and how they CAN do certain things for themselves. Sufficient statistical evidence indicated that 49.7% (n=311) of participants sampled were resilient and 50.3% (n=315) of participants were not resilient. Statistical results also indicate that the following variables are both significant and important in affecting levels of resilience among the TCK participants: Respondent's Age, Time Parents Are Away From Home Each Month, Parent's Marital Status, Number of Year Overseas, Number of Countries Lived In, Grade Level, and Number of Siblings.



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## CHAPTER 1: INTRODUCTION

*As the Boeing 747 sped down the runway, Erika sat inside with her chin propped against a clenched fist, staring out the window until the final sights of her beloved Singapore disappeared from view. How can it hurt this much to leave a country that isn't even mine? Erika closed her eyes and settled back in the seat, too numb to cry tears that begged to be shed. Will I ever come back? For nearly half of her twenty-three years, she had thought of Singapore as home. Now she knew it wasn't and America hadn't felt like home since she was eight years old. Isn't there anywhere in the world I belong? She wondered.*

-Pollock & Van Reken, 2001

### Introduction to the Problem

The globalization phenomenon is largely responsible for the rapid increase in the transmigration of children and families, and as a result, an increase in Third Culture Kid (TCK) populations around the world. Unfortunately a lack of specific census data makes it difficult to determine the actual number of Third Culture Kids (TCKs) to date. It has been estimated that some 300,000 American TCKs are growing up outside the United States (U.S.) today and the numbers increase exponentially when students from the United Kingdom, Europe and Australasia are included (United States Department of State, 2000). Currently there are no similar numbers tracking TCKs of other nationalities, but some studies have estimated these numbers to be as high as one million (European Council of International Schools, <http://www.ecis.org/>). These are kids who fly before they walk and who sort their friends by continent, but who cannot answer the question, "Where are you from?" without a pause. They are not just western children in Asia who feel a tug of conflicting identities; Asian children in western cultures face the same sense of internal conflict.





A majority of TCKs repatriate to their passport country for university studies. Many of these children will experience multiple moves to several different countries before their final voyage “home” takes place however. High mobility and rich transcultural experiences are the most common features found among many TCKs. A relatively new body of literature has begun to emerge that is documenting the unique experiences and challenges common among TCKs who are raised overseas. Some of these challenges include a delayed adolescence, culture shock, and confused identities. These challenges, along with a number of others, occur because TCKs are faced with the task of assimilating into the cultural forms and norms of their own and their parents’ culture, while simultaneously assimilating cultural characteristics and norms of the host country and international schools they are attending (Pollock and Van Reken, 2001). The confusion and frustration that many TCKs encounter can have a negative effect on levels of resilience, which may in turn manifest themselves in academic, social, and emotional predicaments.

### **Background**

*Pines: What are the most important things parents can do to make their children resilient? Rutter: Good Gracious! There’s no simple, straightforward answer to that.*

-Rutter, 1984, p.60

Pollock and Van Reken (2001) define TCKs as children who have spent a significant part of their developmental years living outside their parents’ culture and their country of passport. Moving frequently from one social environment to another often presents TCKs with the challenge of quickly adapting to constantly

changing environments so that they are able to respond appropriately to different foreign settings and people, and new cultural practices and customs.

A lack of a sense of belonging and individual identity, a common phenomenon among many TCKs, can affect their levels of resilience and ability to overcome adversity from their new and always changing environments. Research by Storti and Delaney (2001) reported significant levels of depression and anxiety among TCKs who approached adulthood without having established a coherent and integrated identity for themselves. The highly mobile lifestyles of a TCK provide them with transcultural experiences and opportunities to build relationships with different people, cultures, and customs. These relationships become particularly important in a TCKs identity formation. Unlike their domestic counterparts who generally associate home with a geographical location, it is not uncommon for a TCK to find their sense of belonging through relationships they establish with other TCKs who share similar backgrounds. Researchers, teachers, counselors and parents are now keen on learning more about the factors that might affect, either positively or adversely, the levels of resilience among this unique population of students.

Other factors such as social networks and a child's relationship with family, friends and teachers can also affect levels of resilience. For example, depressive responses, a sign of a weakened resilient state, have been found among children who experience frequent family separation (Rutter, 1971). This arrangement is unfortunately becoming more common with families living overseas, as evidenced by a significant number of students who participated in this study. In fact, it was not uncommon for the researcher to learn of a parent (usually the father) who had

relocated to another country for work (often China, Vietnam, or India) while leaving the family behind in Singapore; their attempt to avoid the inevitable stress that families experience in a relocation. Unfortunately, many children who are “left behind” still report feeling a genuine loss for their absent parent and find it difficult to carry on life as usual. The parent who is left behind (usually the mother) also often experiences an enormous adjustment.

Morano, Cisler, and Lemerond (1993) claim that children who have social support, peer relationships, and a sense of group membership, appear to have higher levels of resilience and therefore less at risk for becoming depressed. Unfortunately, many of these components are adversely impacted in the life of a TCK. From the researcher’s observations teaching and working with TCKs, it is clear that cultural awareness and intuition, solid peer relationships, opportunities for social integration, and a sense of identity have enormous impacts on TCKs as they transition from one country to another.

Research by Potter et al., (1998) also found that children who move on a frequent basis are more likely than those who do not move to experience social isolation and stress, also common features found among depressed and less resilient individuals. Furthermore, in two separate studies conducted by Kaplan (2000) and Stockard and O’Brien (2002), it was found that highly mobile children, particularly adolescents, were more frequently identified as being at risk for depression and suicide.

Few would argue that children should feel loved and lovable, should be respectful and responsible, and should know who they can confide in during times of need. According to Grotberg (2001), these attributes are the cornerstones of what

make up a resilient individual. While they may seem self-evident, the research has found that a disturbingly large percentage of parents and guardians do not know about resilience or how to promote it in their children (Seligman, 1995). In a large international study that examined resilience in children and parents from different cultures, it was found that only 38 per cent of the thousands of responses from parents indicated that resilience was being promoted in their families (Grotberg, 1995). This is a small percentage considering the enormous contribution that resilience can have on the development of children. Furthermore, this study also found that many of these caregivers, while not intentionally, were inhibiting or even thwarting the development of resilience in their children, leaving them feeling unloved, sad, and helpless. This study concluded that children need to become resilient in order to overcome the many adversities they will face in life; that they cannot go at it alone; and that they need an adult who not only knows how to promote resilience, but who are also resilient themselves.

To date, no research has been conducted in the area of resilience with respect to TCKs. When considering the role that resilience plays in childrens' lives, it seems logical that its constructs would stand to play a significant role in the lives of TCKs and the unique challenges they face. A better understanding of resilience and TCKs also serves to inform parents, teachers, caregivers, and community members on how important promoting resilience is in the lives of TCKs.



### Definition of Terms

#### ***Resilience:***

Resilience is a universal capacity which allows a person, group or community to prevent, minimize or overcome the damaging effects of adversity (Grotberg, 1995).

#### ***I Have*** (Adopted from Grotberg's Model of Resilience, 1995):

The "*I Have*" dimensions of resilience are external supports and resources that include the following:

- People around me who I trust and that love me, no matter what;
- People who set limits for me so I know when to stop before there is danger or trouble;
- People who show me how to do things right by the way they do things;
- People who want me to learn to do things on my own;
- People who help me when I am sick, in danger or need to learn.

#### ***I Am*** (Adopted from Grotberg's Model of Resilience, 1995):

The "*I Am*" dimensions of resilience represent inner personal strengths that include the following sources:

- A person people can like and love;
- Glad to do nice things for others and show my concern;
- Respectful of myself and others;
- Willing to be responsible for what I do;
- Sure things will be all right.

*I Can* (Adopted from Grotberg's Model of Resilience, 1995):

The "*I Can*" dimensions of resilience represent social and interpersonal skills that include the following:

- Talk to others about things that frighten me or bother me;
- Find ways to solve problems that I face;
- Control myself when I feel like doing something not right or dangerous;
- Figure out when it is a good time to talk to someone or take action;
- Find someone to help me when I need it.

***Adversity:***

An event that brings trouble, misfortune or distress; something that threatens the well-being and safety of the person (Adams, 1999).

***Stress:***

An event, situation, or combination of situations in which demands are perceived by the child or adolescent as exceeding his or her capacity to comfortably respond (Smith & Carlson, 1997, p.232).

***Risk Factor:***

Any influence that increases the *probability* of onset, digression to a more serious state, or maintenance of a problem condition (Kirby & Fraser, 1997, p.11).

***Protective Factors:***

Forces that help children resist or ameliorate risk (Fraser, 1997, p. 3).

***Third Culture Kid (TCK):***

Any person who has spent a significant part of his or her developmental years outside of their parents' culture (Pollock & Van Reken, 1999, p. 19). The TCK builds relationships to all of the cultures, while not feeling full ownership in any. Although elements from each culture are assimilated into the TCK's life experience, the sense of belonging is in relationships to others of similar background.

***Expatriate:***

Anyone who is living outside his or her home country, either on a permanent or temporary basis. (Hess & Linderman, 2002, p. xv).

***International Schools:***

Schools located in foreign cities with expatriate populations. Instruction in these schools is typically conducted in English or in a combination of English and the local language. Secondary students are often given the choice of American, British, or International Baccalaureate (IB) degree programs.

**Purpose of the Study**

*We want our children to have lives filled with friendship and love and high deeds. We want them to be eager to learn and be willing to confront challenges, ...be proud of their own accomplishments, [and] ...resilient in the face of the setbacks and failures that growing up always brings. And when the time comes, we want them to be good parents. Our fondest hope is that the quality of their lives will be better than our own, and our inmost prayer is that our children will have all of our strengths and few of our weaknesses.*

-Seligman, 1995

The resilience literature is expansive and far reaching. Thus far, the majority of resilience research on children and adolescents has examined why and how the promotion of resilience can help children and young people cope with adversities that arise during periods of change and transition (Daniel *et al.* 1999). The concept of resilience in the context of TCKs has yet to be explored. Similarly, a majority of research that has been undertaken on TCKs primarily involves anecdotal observations and qualitative analysis. While these methods offer a certain degree of insight, they are nevertheless speculative in nature, often lacking empirical investigation. The purpose of this study is to identify the constructs of resilience and how they apply to the specific challenges and adversities TCKs face growing up overseas. The researcher is particularly interested in gaining a better understanding about how the TCK experience affects levels of resilience. This information will help in the creation of interventions to encourage the promotion of resilience which assist TCKs during their time abroad.

This study suggests that the many and varied overwhelming feelings that TCKs experience throughout their time overseas can be lessened if they have the skills, attitudes, beliefs, and resources that characterize resilience. To find practical applications for the resilience theory in the lives of TCKs, resilience must be looked at as a dynamic factor, subject to promotion or diminution by human agency. In other words, any action, for better or worse, must be able to *affect* the way in which TCKs cope with adversities during periods of transition. This report will suggest strategies to promote resilience in children in the Discussion Chapter.



### Significance of the Study

*When you teach a child optimism, you are teaching him to know himself, to be curious about his theory of himself and of the world. You are teaching him to take an active stance in his world and to shape his own life, rather than be a passive recipient...Whereas in the past, he may have accepted his more dire beliefs and interpretations as unquestionable fact, now he is able to reflect thoughtfully on these beliefs and evaluate their accuracy. He is equipped to preserve in the face of adversity and to struggle to overcome his problems.*

-Seligman, 1995, p. 297

Over the last decade, a heightened interest in TCKs has emerged. This study will provide a greater awareness and more in-depth understanding of the complex variables that impact the social and emotional development of these children. This study will also provide a “voice” for TCKs, with the aim of understanding the stressors that many of them face, and the coping strategies that they use to make sense of their lives overseas and ultimately develop into healthy adults. Information gleaned from this study can also serve to stimulate ideas and alternative perspectives from which parents, counselors, educators, government agencies, military and diplomatic personnel and multinational corporations can use when assisting TCKs in their adjustment to living overseas by providing them with a better understanding of the combination of factors that result in resilience in TCKs. Furthermore, results from study can also be used in the creation of educational and counseling programs to meet the needs of TCKs and families who are either embarking on their first overseas living experience or those TCKs and families who have established a tenure overseas and choose to remain abroad. Finally, this study can serve as baseline data for comparison studies with TCKs from other international schools in Singapore and around the world.

It is important to note that this study refrains from making sweeping generalizations of its findings to all TCKs populations. Until more research is conducted that will allow for adequate comparison studies of TCKs , results from this research will be limited to the sample of students from the international school in Singapore being studied.

### **Basic Methodology**

This study is a non-experimental quantitative study. It used a resilience inventory, the Child's Perception of Resilience Checklist Version B (CPRC-B) and a Demographics Form to collect data about the sample population and their perceptions of resilience. The data was analyzed using the Exhaustive CHAID (Chi-Square Automatic Interaction Detection) approach. It is the researcher's belief that empirically based research in the area of TCKs and resilience could heighten awareness and understanding of variables affecting the lives of TCKs. The research questions that guided this study were:

1. What are the levels of resilience in TCKs, ages 7-15, attending an international school in Singapore as measured by the CPRC-B?
2. What are the relationships among levels of resilience and the background factors of TCKs, if any?
3. What are the levels of resilience and TCK background factors which can be used to predict adjustment?

### Assumptions of Study

An underlying assumption in this study is that participants have a basic command of the English language. Students at the Singapore American School (SAS) must pass an English proficiency test as a prerequisite for admittance as all subjects are taught in English. Students are also required to complete the annual Iowa Test of Basic Skills (ITBS) achievement test. The ITBS is a standardized test that is administered annually in schools throughout the U.S. for three reasons: (1) to describe each student's developmental level within a test area, (2) to identify a student's areas of relative strength and weakness in subject areas, and (3) to monitor year-to-year growth in the basic skills ([www.education.uiowa.edu/itp/itbs](http://www.education.uiowa.edu/itp/itbs)). International schools that administer the ITBS compare their school's results to the U.S. national results to gauge how their students compare to those in U.S. public and private schools. The majority of students at the school in this study attain reading and comprehension scores that are at or above grade level expectation as measured by the ITBS in the U.S. It should be noted that English as Second Language (ESL) learners attending SAS are exempt from taking the ITBS tests until which time they successfully pass the Test of English as a Foreign Language (TOEFL). In the pilot study conducted by the researcher, a number of ESL students had difficulty interpreting and answering questions from both the Child's Perception of Resilience Version A (CPRC-A) and Demographics Form. For this reason, the researcher decided to omit ESL student data in the final analysis. To identify ESL students, the researcher included a screener question in the Demographics Form asking if the student was enrolled in ESL. When it came time to process and input the data, this

question helped the researcher easily identify ESL student forms and omit them from the analysis.

### **Organization of the Remainder of the Study**

The intention of Chapter 2 is to provide an overview of the relevant literature related to resilience and TCKs, including a review of resilience factors that could be associated with TCK experiences. The literature review on resilience is discussed in four parts. First, a historical perspective of resilience is presented, followed by an overview of the language of resilience. The various components of resilience, which include stress and risk factors, protective factors and resources, and coping strategies will then be discussed at length. TCK challenges and benefits will then be summarized. Finally, resilience factors that could be associated with TCKs will be discussed, including: cultural influences, parent's role in peer relations, siblings, and peer interaction. Identity development, TCK transition and mobility, and international schools will also be reviewed. Special attention will be given to Grotberg's Model of Resilience as it was used to interpret data gathered in this study. The literature review on TCKs also begins with a historical perspective followed by an overview of the language of TCKs. TCK challenges and benefits will then be summarized. Identity development, TCK transition and mobility, and international schools will also be given attention.

The purpose of Chapter 3 is to discuss the methodology employed in the study. Topics include: participants, instruments, procedure, design, and data analysis. Chapter 4 includes information about the sample, results, analysis, and interpretation of the collected data. Finally, Chapter 5 offers a summary of the study



that includes an interpretation of the research findings as they relate to the research questions, implications of the findings, strengths and weaknesses of the research, limitations of the study, and recommendations for further research.

## CHAPTER 2: LITERATURE REVIEW

*“We acquire the strength we have overcome.”*

-Ralph Waldo Emerson

### A Historical Perspective on Resilience

The concept of resilience is not new. In fact, it was a lesson taught by one of history's great philosophers, Frederick Wilhelm Nietzsche when he said, “That which does not kill us makes us stronger” (1899). While the concept of resilience has been around for many years and used in disciplines such as psychology, business, and education, it is relatively new for describing the behavior of people, and even less common when talking about the behavior of children. Yet, many of us have likely, at one time or another, heard about or perhaps even witnessed individuals who had experienced adversity during their adolescence and yet still managed to “beat the odds” and go on to lead a successful lives in adulthood. How are these individuals able to achieve and maintain their well-being? Who motivates or guides them through their journeys? How do they beat the odds and emerge successful? The search for answers to these puzzling questions has been the driving force behind the study of resilience over the last few decades.

Resilience has been studied through both retrospective studies and concurrent studies. The retrospective studies have identified various resilience factors and provided a baseline set of data from which more sophisticated studies of resilience are able to be conducted. The concurrent studies have tended to examine factors of resilience in terms of children and adolescents in school settings (Loesel, 1992; Osborn, 1990; Wang, Jaertel & Walberg, 1994), or in extreme environments

such as detention settings (McCallin, 1993). This study draws from the resilience factors identified in various retrospective studies and reinforced by concurrent studies to address new questions about resilience in TCKs. The following literature review of resilience is comprehensive enough to give the reader a solid understanding of the main constructs of the subject. It is important to note, however, that some of the resilience research discussed here is not directly applicable to the TCKs in this study, but is considered an important contribution to the resilience literature and hence deserving of attention in this literature review.

The major conceptual frameworks that have been applied in resilience studies are: (a) a pathological framework that examines psychopathology or social pathology, and (b) a developmental/life-span framework. Most of the research before the 1990s utilized the pathological framework. Since then, a growing body of literature focusing on the developmental/lifespan model has emerged (Staudinger, Marsiske, & Baltes, 1993). This shift in focus has been important for studies which are concerned with promoting resilience in children as they develop over time, in the presence or absence of any type of pathology in the child or family, as is the case with this study. It is also important to note that the majority of studies on children and resilience have examined the child in a context such as the family, the social group, the school, or the larger community, as is the case with this study.

A heightened interest in resilience came about as a result of research findings that did not conform to expected outcomes. Cole's fascination with the phenomenon of resilience is captured in this statement:

*For over 25 years, I have been trying to understand how...for a particular child to be penniless, malnourished, utterly uneducated, ailing as a*

*consequence of a range of chronic diseases, with no future prospects of any significance—and nevertheless demonstrate certain qualities of mind and spirit which strike an observer from another world as astonishing , (1989b, p. 45).*

Other researchers who have studied resilience in children have wanted to know “why some children prevail over great adversity... [and] appear to be ‘resilient’ in the face of risk” (Fraser, 1997, p.3). During her time at Yale University, Anna Freud noted, “we have yet to discover what it is that makes for real endurance in children, however difficult their lives” (cited in Coles, 1989a, p.xiii). Chess, another scholar in the resilience field, referred to resilient individuals as “defying the voice of doom... [they] defy this statistical predictive finding and have healthy rather than morbid outcomes” (p. 180). Bernard’s (1991) historical perspective of the roots of resilience research is:

*“...beginning in the late 1950’s and on into the 1960’s and 1970’s, a few researchers decided to... [study] individuals postulated to be a high risk for developing certain disorders—children growing up under conditions of great stress and adversity... As the children studied in these various longitudinal projects grew into adolescence and adulthood, a consistent and amazing-finding emerged: While a certain percentage of these high-risk children developed various problems (a percentage higher than in the normal population), a greater percentage of the children became healthy, competent young adults” (p.2).*

The literature that emerged in the 1980’s targeted risk factors associated with specific problem areas such as poor school performance, alcohol, drug abuse,



teenage pregnancy, delinquency or poverty (Bensen, 1993; Hawkins et al., in Benard, 1991). A few studies explored the effects of multiple stressors on the individual. Missing from these studies however was information about factors that promoted positive, healthy development and that mitigated the negative impact of stressors (Benard, 1991; Bensen, 1993).

A heightened international interest in resilience emerged in the late 1980's as evidenced by a series of conferences and meetings that took place. Some of the earliest gatherings were in Durango, Colorado, (Frankenburg, 1987), Lesotho, Africa, in November, 1991 (Bernard Lee Foundation, 1994), Washington, D.C., in December, 1991 (Institute of Mental Health Initiatives, 1991), Paris, France, in 1993, New York in 1993 (Vanistendael, 1996), Santiago, Chile in 1995 (Kotliarenko, Caceres & Alcaez [Eds.], 1996), and Lisboa, Portugal, 1995 (Gomes-Pedro, 2004). Nowadays, these gatherings are even more frequent, drawing a larger audience from all walks of life and professional avenues.

As discussions about resilience became more prevalent, a paradigm shift started whereby researchers began to focus less on negative outcomes of childhood adversity, and more on adaptive outcomes in spite of childhood adversity (Silva-Wayne, 1994). The approach shifted from a "problem-focused" orientation to "strengths and coping" orientation (Benard, 1991; Saleebey, 1992). One of the first researchers to investigate risk and outcomes in terms of resilience was Norman Garmezy. To describe competent and well-adapted children, Garmezy (1983) coined the terms "invulnerable" and "stress-resistant" which, eventually were replaced by the term "resilience" (Rutter, 1985). Resilience soon emerged as a "byproduct" in the search for risk factors (Kirby & Fraser, 1997, p. 13) and is

generally accepted as a more dynamic and reality-based term (Silva-Wayne, 1994) and an objective measure in attempting to understand and equip youth to manage stress.

Up to this point, research on resilience has included longitudinal studies (e.g., Werner & Smith, 1992), studies of individuals who have survived times of war, epidemiological studies of disadvantaged, medical and ill populations (e.g., Rutter, 1985), research on competent inner-city children in the U.S., and the investigation of ego resilience (e.g., the ability to adapt in a flexible way to changing situations and patterns) (e.g., Block & Block, 1980). Unfortunately, despite the proliferation of studies on resilience, there is yet to emerge a clear and consistent meaning of the term.

### **The Language of Resilience**

As with many other terms used as extensively as “resilience”, defining it and agreeing on the domain its construct covers has been a challenge (Kaufman, J., Cook, A., Arny, L., Jones B., & Pittinsky, T., 1994). The numerous proposed definitions of a resilient person generally revolve around the individual having the capacity to face, overcome, and even be strengthened by their experiences with adversities. Resilience is the term used to describe a set of qualities that foster a process of successful adaptation and transformation despite risk and adversity (Rayner & Montague, 2000). Cross culturally, the concept of resilience implies the ability to “bounce back” from adversities (Rayner & Montague, 2000). The Merriam-Webster’s Dictionary (2004) defines resilience as a) the ability to bounce or spring back into shape or position, etc. b) the ability to recover strength, spirits,

good humor, etc. quickly (1988, p. 1142). Several other proposed definitions of resilience echo similar themes that include successful adaptation, competence, and positive social and health outcomes “in spite of” exposure to setbacks, risk factors, obstacles, disappointments or threatening circumstance, having trusting relationships, self-esteem, emotional support outside the family, hope, encouragement of autonomy, a sense of being lovable, responsible risk, unconditional love for someone, school achievement, and a belief in God and mortality (Demos, 1989; Fraser & Galinsky, 1997; Grotberg, 1997; Haag, 2000; Hauser, Vieyra, Jacobson, & Wertlieb, 1989; Kirby & Fraser, 1997; Wolin & Wolin, 1994). A frequently used accepted clinical definition of resilience is “the maintenance of competent functioning despite an interfering emotionality” (Garmezy 1993). Masten & Coatsworth define a resilient child as one who exhibits positive adaptation in circumstances where one might expect - due to atypical levels of stress - a significant degradation in coping skills to take place (1998).

A child’s genetic makeup and temperament also need to be taken into consideration when discussing resilience in children and adolescents. Rutter (1987) believes that genetic make-up and temperament play crucial roles in determining how an individual will respond to situations of adversity. A child’s vulnerability to anxiety, challenges, stress and unfamiliarity, and a child’s inhibition, suggests a lot about how the child perceives him/herself, how he/she interacts with others, and how he/she addresses adversities (Kagan, 1991). Related to Kagan’s definition of temperament is J.H. Block & J. Block’s notion of ego-resilience (1980). They claim there are ego-overcontrollers and ego-undercontrollers, referring respectively to Kagan’s inhibited and uninhibited definitions of temperament. They say that in



functional settings, either may serve the child, but in dysfunctional settings, the ego-overcontrollers may have a better chance of developing resilience by controlling their reactions to family problems.

The idea of resilience is further complicated when considering it in different cultures and languages that may not have a word to describe what it is understood to mean in English. For instance, Castellano (Spanish) has no comparable use of the word 'resilience', but instead uses a term that means a defense against adversity, *la defense ante la adversidad* (Grotberg, 1995). Conversely, the French language has a word for resilience, but associates the concept with Anglo-American behavioral sciences (Manciaux, 1995). Fortunately, most people around the world understand the idea and concept of resilience, that is to say, what it means to overcome adversity with faith, skills, and courage.

For the purposes of this study, it is helpful to adopt a non-clinical definition of resilience that incorporates the main constructs of resilience and takes into account existing literature. Resilience here will be defined as "a universal capacity which allows a person, group or community to prevent, minimize or overcome the damaging effects of adversity" (Grotberg, 1995). Grotberg says that resilience may be found in a person, group, or community and may make stronger the lives of those who are resilient (Grotberg, 2001). Resilient behavior may come about in response to adversity in the form of maintenance of normal development, despite the adversity, or as a promoter of growth beyond the present level of functioning. Resilience may also be promoted not necessarily out of adversity, but instead in anticipation of inevitable adversities (Grotberg 1997, p.7). In children, it is



promoted as a developmental process of a child over time (Masten & Coatsworth, 1998). Grotberg succinctly writes this about resilient children:

Resilient children are better equipped to resist stress and adversity, to cope with change and uncertainty, and to recover faster and more completely from traumatic events or episodes (1995).

Other bodies of research have said that resilience extends beyond positive outcomes as evidence in people who survive natural disasters, or personal and professional crises. These individuals may appear well on the exterior but are suffering internally from their ordeal (Adams, 1999; Warchaw & Barlow, 1995). Resilience, or 'successful adaptation' as Hauser (1999) calls it, includes "internal states of well-being, effective functioning in the environment, or both" (p. 4). Mary Pipher (1999) wrote, "resilience means growing from experience and becoming more who one truly is" (p.270); suggesting that the individual can become healthier not just by actions, but by feelings and thoughts as well.

The constructs of resilience have been influenced, and sometimes compared to Bandura's concept of "self-efficacy," Rotter's "internal locus of control", Antonovsky's "sense of coherence," and Kobasa's "hardiness." All of these constructs pay heed to health and well-being (Richman & Bowan, 1997). Other paradigms such as the strengths perspective (Saleebey, 1992) and empowerment (Gutierrez, 1990, cited in Fraser & Galinsky, 1997) have expanded the concept of resilience to include considerations of community risk and protective factors (see Fraser & Galinsky, 1997 for more details about the comparison of resilience and other constructs).

In general, the three types of resilience described in the literature include overcoming odds, sustained competence under stress, and recovery from trauma. Each of these themes is associated with a particular research approach (Kirby & Fraser, 1997; Smith & Carlson, 1997). “Overcoming the odds” describes achievements of positive outcomes despite multiple risk factors, and identifies protective factors that predict good outcomes (Beardsless & Podorefsky, 1988; Werner & Smith, 1992). “Sustained competence under stress” focuses on children’s ability to cope with stressful environments which can include events such as the loss of a parent, family conflict, and parental illness (Hauser, 1999). Coping here is defined as the “child’s efforts, including both thought and action, to restore or maintain... equilibrium” (Kirby & Fraser, 1997, p. 14; Smith & Carlson, 1997). “Recovery from trauma” involves children who are able to function well after experiencing a traumatic event such as child abuse, exposure to violence, war or natural disasters (Kirby & Fraser, 1997, p. 14; Smith & Carlson, 1997). Hauser (1999) suggests that this type of resilience focuses on “patterns of recovery” in a person-based approach.

In conclusion, it can be said that the constructs of resilience are complex and dynamic, and sensitive to biological, environmental, and psychological influences. Fraser & Galinsky (1997) appropriately summarize:

“A resilience perspective ensures that the strengths of individuals, families, and communities are assessed and used in ways that prevent problems and ameliorate existing difficulties. Of course, risk as well as protective factors must be systematically included in change efforts” (p. 271).

The paradigm shift in the resilience research now suggests taking into account an individual's history or risk and stress factors in light of the positive influences of protective factors, coping, and resources that are available.

### **Factors Affecting Resilience**

*"A resilient child is one who works well,  
plays well, loves well and expects well."*

-Werner & Smith, 1982

The literature has broadly identified three areas that affect levels of resilience. The first area includes stress and risk factors, the second area includes protective and resource factors, and the third area includes coping strategies. The following section will expand on these categories as they pertain to this study. For the sake of clarity and the purposes of this study, these areas will be discussed as they relate to the individual, the family, and the community.

### **Stress and Risk Factors**

*The paradox of resilience is that our worst times can also be our best.*

-Adams, 1999, p.4

Researchers have found a consistent relationship between stress and psychological and behavioral problems in children and adults (Compas, 1987; Compas, Malcarne, & Fondacaro, 1988; Compas & Wagner, 1991; Dubow & Tisak, 1989). In contrast to adults however, stressful life events have the potential to not only affect the health of children, but also their developmental process (Trad &

Greenblatt, 1990). Stressful life events in children have been linked to adverse outcomes, depression, anxiety, suicide attempts, antisocial behavior, and health problems (Compas, 1987; Compas, Malcarne, & Fondacaro, 1988; Compas & Wagner, 1991; Dubow & Tisak, 1989).

The literature has employed two definitions of stress. The first is defined in terms of stressful life events or stressors that demand adaptation, such as a school transition or parental divorce (Lazarus & Folkman, 1984). The second definition focuses on the subjective aspects of stress, emphasizing the intervening role of cognitive appraisal in defining an event or situation as stressful (Lazarus & Folkman, 1984). For the purposes of this study, a working definition of stress that combines both of these definitions will be used. Stress in children will be defined as “an event, situation, or combination of situations in which demands are perceived by the child or adolescent as exceeding their capacity to comfortably respond”.

A wide range of stressors have been considered in the resilience literature. Stressors are situations or events that provoke stress. They can originate from within the individual or from the individual's environment. Stressors have been characterized as either ‘acute’ or ‘chronic’ (Compas, 1987). Acute stressors involve changes in existing conditions or a disruption of the status quo. Examples of this for children may include events such as an argument with a parent, the loss of a parent, parental separation or divorce, a move to a new home or country, serious accident or injury, or the illness of parent or sibling. Chronic stressors include major life events such as deprivation, abuse or neglect, discrimination, homelessness, or exposure to violence (Christie & Toomey, 1990; Cummings E. & Cummings L., 1988; Johnson & Cohn, 1990). A number of studies have suggested that acute stressors such as



school related adversities and interpersonal conflicts with peers and family are often felt more intensely by adolescents (Gore & Colten, 1992).

Early adolescence, characterized by its painful self-examination, search for self-definition, and other uncontrollable changes, is acknowledged as a potentially chronic stressful experience (Garbarino, Dubrow, Kostelny, & Pardo, 1992; Gore & Colten, 1991). Studies have been conducted with children of various ages to learn more about specific events and situations children consider stressful (Compas, Malcarne, & Fondacaro, 1988; Ryan, 1989; Wertlieb, Weigel, & Feldstein, 1987). These studies found that children most frequently mentioned daily hassles with parents and ordinary transitions, such as school changes, as stressful events. They also found that certain life events inherently considered stressful - such as parental separation and changing schools - actually had the potential to have both positive and negative implications for a child. Researchers concluded that the outcome of these stressors was dictated by the individual's evaluation of an event or situation in terms of its implications for well-being. Similarly, a child's perception of a stressful event or situation was found to be an important mediator of how it was experienced and the coping strategies employed by the child. This conclusion suggested that it was possible for siblings facing similar stressors to achieve different outcomes.

Stress can manifest itself in many forms. Stress is typically the result of how an individual interprets an event, and the available supports, coping strategies, and resources available (Gadzella, 1994; Rice, Herman, & Peterson, 1993). Examples of stress can be as general as conflicts, frustrations, and pressures, but can also be as specific as delays in achieving a goal, failure, social isolation, health

problems, controversial relationships, getting arrested and unplanned pregnancies (Gadzella, 1994; Gore & Aseltine, 1995; Kirby & Fraser, 1997).

Risk factors, while somewhat related to stressors, are defined as “any influence that increases the *probability* of onset, digression to a more serious state, or maintenance of a problem condition” (Kirby & Fraser, 1997. p. 11). To differentiate between a risk factor and a stressor, Smith and Carlson (1997) wrote:

“...both stressors and risk factors have the potential to threaten child and adolescent well-being. Whereas stress, depending on how it is perceived and handled, may or may not lead to negative outcomes, risk factors increase the odds of poor outcomes. Most risk factors can be considered stressors, for example, ethnic minority status, poverty, parental discord, parental criminality or mental illness, or out-of-home placement, but the reverse is not necessarily true. Some stressors may not be considered risk factors, in particular daily hassles and normal transitions. Moreover, some stressful events are ambiguous or even positive in terms of their meaning to the individual, whereas risk factors are always considered negative.” (p.235)

Reducing risk factors is paramount if the goal is to increase the chances of children experiencing success (Rutter, 1994). Recognizing that elimination is completely unrealistic, incorporating resilience factors can increase the likelihood that a child will resist or recover from exposure to adversities. Positive child development is not simply a matter of reducing risk factors and promoting resilience however. The successful management of risk is a powerful resilience-promoting factor in itself. Furthermore, risk factors are cumulative, thus even though a child may often be able to overcome and even learn from single or moderate risks, when

these risk factors accumulate, the child's capacity to survive rapidly diminishes (Fergusson and Lynskey, 1996).

Transitional periods, such as the time between junior and senior high-schools, have been identified as periods of exceptionally heightened risk which are often accompanied by things such as a decline in academic performance and discipline problems (Jackson and Sachdev, 2001). Finally, risk factors are often interconnected, meaning that children who have experienced exceptionally high mobility often experience some developmental lag in their social skills and academic performance. If this is accompanied by exposure to parental conflict or a prolonged period of absence by a parent, even a child with a highly resilient personality may succumb.

The concept of deficits is similar to risk factors and stressors. As part of the Search Institute's Profile of Public School Students in the U.S., Benson (1993) reported that deficits such as abuse, parental addiction, negative peer pressure, social isolation, and an overexposure to television and mass media could "interfere with healthy development, limiting access to external assets... or easing the way into risky behavioral choices". Benson also reported that "deficits are liabilities, none of which necessarily does permanent harm, but each of which makes harm more possible" (p.19).

In summary, it has been shown that stress and risk factors are present in a variety of domains. Stress takes into account the meaning or perception of the experience. In other words, what might be considered a crisis situation to one individual may actually be seen as a challenge and therefore managed successfully by another individual. Risk factors can include "characteristics of individuals and

families, social contexts, or the interactions between persons and their environment” (Smith & Carlson, 1997, p. 234).

### **Individual Stress and Risk Factors**

Chronic illness, birth complications, biological and genetic attributes during prenatal term, accidents, and individual characteristics such as a low IQ, difficult temperament, or attention-deficit disorder are all examples of individual risk factors and traits that may lead to subsequent problems or disorders (Hauser, et. al., 1989; Colten & Gore, 1991; Garmezy, 1983; Kirby & Fraser, 1997; Smokowski, 1998). In adolescents and children, temperamental difficulties such as mood irregularities are considered risk traits (Tubman & Windle, 1995). These children are more likely to be the target of parental hostility, criticism, and irritability (Rutter, 1983). It has also been documented that frustrated parents “take it out” on male and female children differently; male children with difficult temperaments often tend to be scapegoated. In a study by Tubman and Windle (1995), higher levels of difficult temperaments were linked to depressive symptoms, increased use of drugs, and the disintegration of psychosocial functioning. Other research has reported that females with limited family support are particularly at risk for persistent difficult temperaments (Smokowski, 1998).

Martin Seligman’s research (1995) on resilience correlated pessimistic and optimistic world views to temperament. In his research, he found that children with pessimistic perspectives were at greater risk than their optimistic peers for doing poorly in school, experiencing problems with anxiety and depression, and experiencing health related problems. Furthermore, he found that pessimistic



children who experienced depressive symptoms were at greater risk for experiencing recurring depressive symptoms later in life. The findings from Hammond and Romney's (1995) reaffirm Seligman's research. They found that clinical depression in adolescence was correlated with low self-esteem and self-efficacy, social isolation, and pessimistic world views. They asserted that, "depressed individuals ascribe negative attributes to themselves and evaluate their performances as evidence of personal inadequacy and social ineptitude" (p. 677). Some studies have also found gender to be a determining factor in how individuals manage stress and risk situations. In Gadzella's (1994) study of undergraduate students in the U.S., it was reported that women experienced significantly more stressors and negative reactions to these stressors than their male counterparts. The findings of Werner and Smith (1982) are consistent with this observation when they found that adolescent girls were at a higher risk for some mental disorders.

Using the information learned about how individual characteristics such as difficult temperament, pessimistic work view, and low self-esteem and self-efficacy heighten an individual's risk of poor outcomes, Fraser (1997) introduced a concept that linked particular risk factors to particular outcomes: "...different individual, family, school, neighborhood, and contextual conditions produce different kinds of problems" (p.3). For instance, individual risk factors like poor impulse control, sensation-seeking orientation, attention deficit, external locus of control, and a sense of meaninglessness are commonly associated with the use of alcohol and drugs (Jensen, 1997; Newcomb & Harlow, 1986). Newcomb and Harlow (1986) believed that "by adolescence a pattern may have developed whereby many teenagers seek solace from alcohol, marijuana, and other drugs in order to relieve a sense of

meaninglessness and lack of direction in their life” (p. 574). Adolescent delinquency and conduct disorders have been linked to low self-esteem, depression, temperamental behavior, poor social skills, educational and problem-solving deficits, learning disabilities, low commitment to school, attention deficit/hyperactivity, a constant feeling of guilt, and socialization problems with respect to conventional values and norms (Stouthamer-Loeber, Loeber, Farrington, Zhang, vanKammen, & Maguin, 1993; Sullivan & Wilson, 1995; Williams, Ayers, & Arthur, 1997). While most adolescents involved in delinquency commit relatively minor offenses, delinquent and conduct behaviors as well as alcohol and drug use have been linked to poor mental health (Mills, 1996).

### **Family Stress and Risk Factors**

Family risk factors that have been shown to affect children include parental problems (e.g., parental substance abuse, mental illness, or criminality), lack of structure and poor communication in the family, unattuned parent-child relationships, and abuse. In a study on the effects of parental alcoholism on childhood development, it was found the most vulnerable children that risk experiencing poor emotional and behaviors outcomes as a result of their parents' alcoholism were children six years and younger, children without siblings, and the oldest child in the family (Berlin & Davis, 1989). Adolescent children of alcoholic parents were found to have maladaptive outcomes that included problems with impulse control, running away, depression, suicidal behavior, and substance abuse. Middle school children of alcoholic parents were found to be at risk of low academic performance, fewer peer relations, mood control problems, and lower self-esteem.

Furthermore, it was found that parental depression greatly increased the chances of their children experiencing depressive symptoms (Gilbert, 1997). The implications of this for boys was linked to adjustment problems while for girls was found to often lead to more severe depression (Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1993).

Not surprisingly, marital conflict and family discord were also found to have substantial negative impact on children. Conger and colleagues connected marital conflict and adolescents' alcohol use (Conger, Lorenz, Elder, Melby, Simons, & Conger, 1991). In the Ontario Child Health Study, it was found that significant numbers of youth aged 12-16 years old who were exposed to domestic violence and parental problems (parental mental illness and/or criminality) experienced psychiatric disorders including conduct disorders, emotional disorders, hyperactivity, and somatization (Rae-Grant, Thomas, Offord, & Boyle, 1989). Once again gender implications were identified, documenting that boys tended to show more severe and prolonged disturbances to family discord and divorce than girls (Chess, 1989). Hetherinton and colleagues (1982, cited in Rutter, 1987) also studied gender differences and family stress. They found that parents who were more likely to quarrel in front of boys provoked boys to react with more disruptive oppositional behavior than girls. It should be noted that there are no studies to date that suggest females have higher levels of resilience in terms of discord and divorce (Fergusson & Lynskey, 1996).

Genetic transmission has not only been linked to mental illness and substance abuse, but also has been observed to increase the chances of these outcomes when combined with other risk factors such as poor parental skills (e.g.,



poor communication, ineffective problem-solving strategies, and few monitoring skills) and a stressful parent-child relationship (Kirby & Fraser, 1997). Rae-Grant and colleagues (1989) also found that poor interaction between youth and their mothers was significantly related to the presence of disorders. In another study, suicidal youth were interviewed about what they considered to be their “most stressful event” (Wilson, Stelzer, Bergman, Kral, Inayatullah, & Elliot, 1995). It was found that the most frequently cited reason by these individuals was relationship problems with their parents. In yet another study of parent-youth relationships, it was found that youth would often use alcohol and drugs to alleviate their physical discomfort and distress (McCubbin, Needle, & Wilson, 1985, p. 59). Jenson (1997) also proposed similar risk factors associated with youth alcohol and drug abuse that included family conflict, poor parent-child bonding, ineffective family communication and family substance abuse.

Delinquency has also been cited in reference to family risk factors. Family variables that have been widely associated with delinquency include large family size, lack of parental affection, low income, lack of adequate supervision, family conflict, parental deviance, and harsh discipline (Sullivan & Wilson, 1995). Hoge, Andrews and Leschied (1996) studied 338 youth offenders aged 12-17 and found the vital link between less re-offending and better overall adjustment was the relationship between the youth and parents and the parental capabilities.

Separation and loss also put children at risk for poor developmental outcomes (Rutter, 1972, in Hauser et al., 1989). Low perceived attachment to parents has been associated with conduct problems, inattention, depression, and frequent experiences of negative life events (Raja, McGee & Stanton, 1992). Thus,



it is hardly surprising that the formation and growth of close relationship bonds are encouraged to improve the chances of positive child and adolescent development. In the absence of this, children and adolescents are more prone to experiencing abnormal developmental patterns and mental health problems (Mills, 1996).

Neglect and physical, sexual and emotional abuses are examples of parental mistreatment that have been linked to poor outcomes such as problematic internalizing and externalizing behaviors (Thomlison, 1997). Girls have been found to be at greater risk because they are typically the targets of physical and sexual abuse (Benson, 1993). In a study of sexually abused girls, it was found that despite their ability to maintain social competence, they still suffered from clinical levels of depression, suicide, anxiety, and aggressive behaviors. (Spaccarelli and Kim's, 1995). Abusive parenting not only poses risks for the development of children, it also poses risks for the parents themselves (Thomlinson, 1997).

While pregnancy is not commonly thought of as a risk factor, it must be considered as such in situations of poverty and single parenthood (Franklin, Corcoran, & Ayers-Lopez, 1997). Adolescent pregnancy has been correlated with single parent households, but it remains to be seen whether this is a consequence of poverty or a result of the family structure itself. What is often cited in the literature, however, is the notion that peer relations have a tremendous influence on adolescent sexual behavior:

“The support for peer relations as a protective and risk factor is strong, but it is difficult to know whether adolescents’ sexual behavior is influenced by their sexually active friends or whether they select friends among peers who, like themselves, are sexually active” (Franklin et al., 1997, p. 203).

**Community and Social Stress and Risk Factors**

Community and social stress and risk factors that have been associated with adverse child and family outcomes include unemployment, discrimination, social isolation, violence, homelessness, and dangerous living conditions (Dryfoos, 1990; Smokowski, 1998; Williams et al., 1997). Kirby and Fraser (1997) claimed that these factors have both direct and indirect effects on the overall risk to children: “For example, poverty directly affects children by lowering the quality of their food and shelter. It has indirect effects on children by placing parents under such constant strain that they find it difficult to respond consistently to a child’s needs” (p. 11). Once again, gender differences are evident in terms of their impact and the ways males and females deal with environmental stress. In a four year study conducted by Ge and colleagues, it was found that depressive symptoms in girls were associated with changes in uncontrollable, stressful life events that increased through adolescence. On the other hand, boys’ symptoms were observed to remain relatively stable during this period. The researchers concluded that, “girls are found to be more reactive than boys to these environmental adversities” (Ge, Lorenz, Conger, Elder, & Simons, 1994, p. 479). The researchers also stressed that caring and support from parents acted as a mediating protective factor.

Community risk factors for these problems include the availability of community resources, community values, level of community organizations, norms and attitudes, general living conditions, and the level of devaluation of the neighborhood (Jenson, 1997; Sullivan & Wilson, 1995; Williams et al., 1997). Each of these factors can have varied influence on community members (Sullivan & Wilson, 1995). Furthermore, if there are not many opportunities for higher

education and employment, it is possible to discourage youth from achieving their goals, which may in turn lead to frustration, anger, alienation, substance abuse, school failure, and delinquency (Kirby & Fraser, 1997). Hendryx and Ahern (1997) linked psychiatric disorders to poor health and lower income. They concluded that, “psychiatric health in dysfunctional communities should not be narrowly construed as an individual problem, when it in fact reflects underlying social pathologies” (p.156). In a different community study, researchers found individuals who felt a “sense of community”, be that in the school or neighborhood, were more likely to meet supportive people and avert loneliness (Pretty, Andrews, & Collett, 1994).

### **Summary of Stress and Risk Factors**

The classes and types of risk factors are both varied and abundant. Children who encounter *multiple risk factors and chronic stress* are more likely to experience poor outcomes (Fraser & Galinsky, 1997; Smith & Carlson, 1997). Further, multiple risk factors have been referred to as “risk chains” or “piles-up” stressors (Rutter, 1987; Smokowski, 1998). Smokowski (1998) claims:

“...low socioeconomic status often coincides with or precipitates risk factors such as parental distress, marital discord, parental substance use, inadequate access to health services, and lapses in parental supervision, among others. These risk factors become risk chains, which subsequently heighten the likelihood of child maltreatment, adolescent alcohol and drug use, delinquency, and teenage pregnancy.” (p. 340)

Furthermore, Rutter’s (1987) research revealed that conduct disorders in children were linked to severe marital discord, large family size, parental criminality, and



maternal psychiatric disorder. He also found that the rate of conduct disorder increased tenfold when children experienced four or more risk factors simultaneously (Rutter, 1978 cited in Smith & Carlson, 1997). Kirby and Fraser's (1997) findings reiterated this discovery and stated that "the effect of exposure to several risk factors may not be simple additive. Although the effect of a single stressor may be negligible, the effect of three stressors may be far greater than a threefold increase in risk" (p. 12). Thus, it can be said that multiple risk factors (e.g., abuse, poverty) and risky behaviors (e.g., teenage pregnancy, crime, substance abuse) are associated with poor mental health. Mills (1996) suggested that, "the more risky behaviors that the youth are involved in, the greater the chances of experiencing mental health problems and/or the greater the magnitude of problems experienced" (p. 32). Not surprisingly then, risk chains can be said to increase the likelihood of comorbidity of psychiatric conditions in youth. Research has found childhood depression often occurs with anxiety or conduct disorders (Gilbert, 1997), and that there is a significant relationship between conduct disorders and Attention Deficit Hyperactive Disorder (ADHD) (Offord et al., 1992; in Williams et al., 1997).

Delinquency, behavioral and psychological problems, academic difficulties, and physical problems are just a few of the varied problematic behaviors and poor outcomes discussed in the literature (Hauser et al., 1989). Similar to risk chains, problematic behaviors and poor outcomes rarely appear in isolation. This is why a youth who demonstrates one problematic behavior such as crime is likely to demonstrate another (Kazdin, 1993). Dryfoos (1990) also concluded that behavioral problems were interrelated when he found delinquency was associated with early sexual activity, teenage pregnancy, substance abuse, academic problems, and



dropping out of school. Other researchers have found a similar clustering of adolescent problems, linking adolescent drug abuse to delinquency, pregnancy, school misbehavior, and failing out of school (Hawkins, Catalano, & Miller, 1992, in Kirby & Fraser, 1997).

An obvious intervention method would be to reduce risk and stress. Chess (1998) believes that, "The identification of risk factors is a powerful method in pointing to priorities of action before waiting for risk to become actuality..." (p. 180). There are many strategies to reducing risk, such as modifying exposure to risk by altering the perception of risk (Rutter, 1987). Parents could also be educated about ways in which they can be more involved with their children, how to best supervise their children's activities and peer relationships, understand their children's feelings, and manage their own anxiety and depression through therapeutic techniques (Rutter, 1985; Smith & Carlson, 1997). It has been suggested that intervention should focus on "children's own actions in physically removing or emotionally distancing themselves from an unalterably bad situation" (Rutter, 1987; p. 327). On a more macro level, strategies to reduce risk might include efforts to ameliorate or lessen social and community problems. Benard (1991) suggested a more general approach to intervention by means of enhancing protective factors, resources, and coping strategies. He stated that there was,

"...growing research interest in moving beyond the identification of risk factors for the development of a problem behavior to an examination of the 'protective' factors, those traits, conditions, situations, and episodes that appear to alter – or even reverse – predictions of [negative outcome] and enable individuals to circumvent life stressors" (p. 2).

### **Protective Factors and Resources**

Since the late 1970's, protective factors have been at the forefront of discussions investigating risk and resilience (Rutter, 1985).

“Positive development requires constant exposure to interlocking systems of support, control, and structure. In the ideal, young people—via schools, families, community organizations, and religious institutions—constantly interact with caring, principled adults. These patterns of support, control, and structure function as external assets, providing young people with webs of safety and love important for stimulating and nurturing healthy development” (Bensen, 1993, p. 7).

The strengths that exist within high risk environments of resilient children are called “protective factors” (Fraser, 1997). More specifically, protective factors are “forces that help children resist or ameliorate risk” (Fraser, 1997, p. 3). Hauser (1999) expanded on this definition by suggesting that protective factors “moderate the effects of individual vulnerabilities or environmental hazards, so that a given developmental trajectory reflects more adaptation... than would be the case if protective processes were not operating” (p. 4). The three major protective factors that will be discussed as they relate to this study are individual characteristics, community and social networks, and characteristics of familial, adult and peer relationships.

### **Individual Protective Factors and Resources**

Intellectual skills that are average or above average have been frequently cited in the literature as an important protective factor (Fergusson & Lynskey, 1996;

Hauser, 1999; Werner & Smith, 1992). This includes capable children who develop superior problem solving skills which are used in dealing with stressful situations (Rutter, 1983). Intellectual skills also include aptitude that leads to academic success, which then leads to self-esteem and competency, and ultimately better decision making.

Another recognized protective factor is positive temperament. This includes sociability, optimism, cooperation, and the ability to relate (Werner & Smith, 1982; Garnezy, 1983; Rae-Grant et al., 1989). In a study of 24 inner-city adolescents and their families in the U.S., resilience themes that were noted included sociable personalities and good natured temperaments (Safyer, 1994). Somewhat related to a positive temperament is a sense of humor, which is also associated with resilient individuals. It has been found that the ability to generate “comic relief”, find alternative perspectives, and laugh at oneself and ridiculous situations is related to competence and higher levels of resilience in youth (Benson, 1993; Masten, 1986).

Other resilience characteristics that have been associated with managing stress are problem-solving skills, being action-oriented and willing to take initiative, exhibiting creativity, and being able to visualize solutions to problems (Rae-Grant et al., 1989; Benard, 1991; Safyer, 1994; Wolin & Wolin, 1994; Warschaw & Barlow, 1995; Sanford, 1997). Problem-solving skills and emotional regulation in particular have been noted as key factors in an individual's ability to cope with stressful situations (Frydenberg & Lewis, 1993). All of these characteristics assume flexibility in response (Demos, 1989), and an openness to entertaining new ideas (Warschaw & Barlow, 1995). Demos (1989) insisted:

“At the very least resilience requires that the [young] child take an active stance toward an obstacle or difficulty. If the child simply gives up, then by definition, this is not a resilient response. The capacity to bounce back requires the ability to see the difficulty as a problem that can be worked on, overcome, changed, endured, or resolved in some way... Resilience, then, seems to involve a ‘reasonable’ persistence that avoids getting stuck or bogged down and that seems to know when enough is enough,...and when to temporarily redirect one’s efforts” (p. 4).

Resilient individuals also have pro-active perspectives, versus reactive responses. This necessitates good verbal communication skills and a willingness to take risks. A pro-active individual independently chooses to concentrate on what they consider important in life (Warschaw & Barlow, 1995). Adams (1999) contended that resilient individuals “work at what can be changed in their lives and accept what can’t” (p. 15). Warschaw & Barlow (1995) say that resilient individuals are calculated risk takers: “Resilient people don’t always play it ‘safe’, but take intelligent risks grounded in real possibilities and with a good chance of success” (p. 4). A resilient person will utilize preventive strategies before problems surface and attempt to resolve problems should they arise. This necessitates good verbal communication skills, social skill, and social competence (Benard, 1991; Werner & Smith, 1982).

Other critical protective factors that have been noted in the literature are a “strong sense of independence” (Anthony, 1987), self-reliance, self-discipline and impulse control (Benard, 1991; Garmezy, 1983). Additionally, a group of characteristics that relate to hopefulness and the ability to cope have been



recognized. These characteristics include optimism, a sense of anticipation, belief in a bright future, persistence, education aspirations, goal-directedness, a sense of purpose (Benard, 1991; Benson, 1993; Seligman, 1995), imagination and an unambivalent commitment to life (Warschaw & Barlow, 1995). Interestingly, educational aspirations have been found to be a more accurate indicator of high school graduation than actual academic achievements (Newcomb & Bentler, 1986 in Benard, 1991). Similarly, life goals and educational and/or career goals objectives serve as protective factors against teenage pregnancy (Franklin et al., 1997).

Another group of protective factors have been identified that help individuals believe they are personally responsible for their own fates (Hauser, 1999; Mills, 1996). These protective factors include self-determination, self-efficacy, and having an internal locus of control. In Luthar's (1991) study of 15 year-old inner-city adolescents in the U.S., it was observed that internal locus of control and social skills (specifically social expressiveness) acted as protective factors. In another study of Columbian street children, it was reported that these children:

“...externalized the causes for their difficult situations, but internalized the active choice to be in the streets. Their sharing of each other's stories... reinforced the interpretation that their situation was due to unjust circumstances beyond their control and not because of anything intrinsically wrong within themselves. Causality was rooted in such factors as overcrowded rooms, empty dinner plates, and abusive parents, rather than in their own “badness” (Felsman, 1989, p. 77).

Silva-Wayne's (1994) notion of ‘protective thinking’ parallels the notion of hopefulness and ability to cope. Protective thinking refers to a group of attitudes

and thoughts which seem to aid resilient children in dealing with their past histories, act in the present, and look confidently towards the future.

Some researchers have also studied the effects of religious affiliations, spirituality, and belief in a higher power, or God in terms of protective factors. These studies have looked at how spiritual beliefs provide support to individuals during trying times (Hauser, 1999; Schultz, 1991; Werner & Smith, 1992). Many researchers now agree that faith “is what helps people feel that they are not alone... whatever helps them find or make meaning in their lives” (Adams, 1999, p. 16). Resilience has also been associated with the ability to accept and receive comforting. Resilient children are not only able to seek out supportive relationships from caring adults (Bachay & Cingel, 1999; Werner & Smith, 1982), but also more likely to accept the care and concern of teachers and other adult figures in their lives (Benson, 1993).

Thus far, the protective factors of a resilient child have been related to self-esteem and positive self-concept which are both defined by the positive thoughts and feelings one has about oneself and one’s social environment (Rutter, 1987). In a stressful environment, protective factors include having a sense of purpose and self-worth, as well as trusting that one’s actions will result in change. Dumont and Provost (1999) found this to be particularly relevant in preventing depression among a group of 8<sup>th</sup> and 11<sup>th</sup> grade students. Hauser’s (1999) longitudinal study also produced interesting findings with regards to self-esteem, positive self-concept, and other resilience related factors. In this study, resilient adolescents, all of whom had been hospitalized for a serious psychiatric illness, were compared to average adolescents. The resilient individuals unanimously reported fluctuations in self-

esteem; “ever apparent were the resilient individual’s vacillating appraisals of themselves... they were marked by swings of confidence and disappointment, optimism, and pessimism about life’s chances” (p. 20). This finding suggests that self-esteem and optimism in resilient individuals is not static or unwavering. Another theme Hauser consistently found among his resilient subjects was the presence of self-efficacy as demonstrated by their planned and appropriate choices regarding placement subsequent to their discharge from the hospital, and again as adults in their conscious choices about responsible parenting. Persistence and ambition was the third area that distinguished Hauser’s resilient adolescents from their counterparts. He recorded a number of refusals on the part of his subjects to accept the hospital’s recommendations for school placement because they were instead keen on selecting their own schools. Over time, Hauser observed self-reflection in his subjects through their “increasing awareness of their feelings and thoughts, within and over each of their teenage years, and in later reflecting on their experience and performance as parents” (p. 20).

Beardslee’s (1989) findings reiterate the importance of self-reflection as just discussed. In his study of adolescents who had a sick parent, he correlated his subjects’ ability to anticipate change and effectively manage stress with their firm understanding of their own responses to change. His study highlighted self-understanding, which is similar to the notion of self-reflection, as an important protective factor.

In conclusion, resilient adolescents can be considered individuals with a sense of coherence; that is to say, “a feeling of confidence that one’s internal and external environment is predictable and that things will probably work out as well as

can be reasonably expected” (Werner & Smith, 1982, p. 163). They are individuals who are unwilling to see themselves as victims, but are accountable for their actions and decisions, and able to turn adverse experiences into learning opportunities (Warschaw & Barlow, 1995). Radke-Yarrow and Sherman (1990) observed that resilient children, “All have winning smiles and are attractive, charming and socially engaging” (p. 114).

### **Family, Peers, and Relationships as Protective Factors**

Sources of support for children can be derived from a number of places including peers, parents, family as a whole, and other significant adult figures in a person’s life. A number of studies have reported social relationships among family members and peers to be the best predictors of behavioral outcomes in children, particularly in high risk children. This is reaffirmed by Werner and Smith (1982) who found caregiving during a child’s first year of life to be the most powerful predictor of childhood resilience. The affectionate bond that develops during this time is thought to have substantial protective effects that continue throughout childhood and adolescence.

Bachay and Cingel (1999) conducted an ethnographic study of 28 female minority students who emphasized the importance of family support in dealing with stress and helping them to “navigate the muddy terrain of adolescence” (p. 171). “Parents were described as being authoritarian but loving, and mothers were honored and recognized for having provided love and support that resulted in a sense of empowerment” (p. 169). They also documented that:



“The refusal of 24 of the 28 women to separate and individuate from their families during adolescence and adulthood insulated them from the perils of dysfunctional or acting-out behavior that is endemic in adolescence. These relationships were anchors through such experiences as immigration, racism, sexism, parental divorce, and sexual abuse” (p. 173).

Some studies have even prioritized healthy relationships with parents over good peer relationships with regard to protective factors for mental health (Raja, McGee, and Stanton, 1992). In a New Zealand study of adolescence, it was found that adolescents with perceived positive attachment to both parents scored higher on a measure of self-perceived strengths. The researchers suggested that self-perceived strengths were the basis of the development of self-esteem and identity. Horn and Chen’s (1998) longitudinal research of moderate to high-risk high school students in the U.S. yielded similar results. Despite their social and educational challenges, these students pursued university studies because of their parents’ educational expectations and influences (evidenced by parent involvement in school and frequent school-related discussions). In a different study of troubled families, three quarters of children who did not have a good relationship with one parent displayed conduct disorders compared to only one quarter of those who had a good relationship with at least one parent (Rutter, 1989). These studies highlight the impact of care, support, and affection from one or more parent in abating the effects of risk and stressful events on healthy child and adolescent development.

While healthy relationships with parents have been shown to be important, Hauser (1999) warned not to discount the value of positive peer relationships. His

research on resilient individuals who had been hospitalized during adolescence for mental illnesses found that participants attributed:

“...immense importance to close friendship and to their thirst for relationships... They tell us about how they found new friends and how these friends helped in their recovery from the many disruptions associated with being admitted and living at the hospital” (p. 21).

In another study of Colombian street children under the age of 16 years old, protective factors were found to be connected to peer relationships (Felsman, 1989).

The study noted that,

“...a strong mutuality, the sharing of food, toys, and clothing, all accompanied by intense displays of emotional support... peer group is primary and serves the additional purpose of reality resting. They know each other’s stories, the how’s and why of their being in the streets” (p. 76).

It is also possible for supportive relationships with adults who function as role models to act as protective factors for children and youth (Garmezy, 1983; Schultz, 1991). In a longitudinal study of high-risk children, it was found that surrogate parents (neighbors, teachers, parents of boy/girlfriends, youth leaders, members of church groups, grandparents, uncles, and aunts) were received as caring adults by the youth and aided in their successful transition into adulthood (Werner & Smith, 1992). Silva-Wayne (1994) also found that young adults who have been under foster care during their adolescence, distinctly remembered the adults that cared for them.

“It was remarkable, to hear how very tiny snippets of recognition and encouragement, received so long ago, made an enormous difference in the

memory and present day functioning of some participants, by their own accounts" (p. 200).

In a personal account written by Adams (1999), he recalled:

"I have seen where a special connection with an adult has made a huge difference in the life of a teen... If a connection with an adult is such that the adolescent feels listened to and important, and the connection is something separate from what is hard, troublesome or bad in their lives, then they will begin to care more constructively about themselves" (p. 3).

Thus far in the literature, there has been a consensus about common protective factors for children and youth at risk. There is, however, some debate in the literature about whether these factors are different for males and females. Gilligan (1993) purports that the development of females relies on bonding, connectedness, and intimate relationships. Male development on the other hand is largely contingent on separateness and detachment. Rae-Grant and colleagues' (1992) examination of perceived attachments to peers and parents and adolescent well-being found that females had a greater attachment to their peers than males. They did, however, identify gender differences in relation to attachment to parents. In the Ontario Child Health Study, conducted by Raja and colleagues (1989), the presence of good friendships appeared to protect females but not males from psychiatric disorders. In contrast to this, Gore and Aseltine (1995) found that strong peer support amplified emotional responses to stress and depressed moods in girls. This particular study found that in the case of boys, family and peer support served as protective factors in managing negative emotions and depressed moods associated

with peer conflict. The findings of this reports left unclear differentiations between the importance of peer relationships as protective factors for females and males.

Rutter (1987) insisted that "one good parent-child relationship" substantially reduced the psychiatric risk associated with family conflict, but it was also noted that having a positive relationship with one important person, not necessarily a relative, who provides emotional support, appropriate attention, affection, discipline, structure and protection is just as effective in reducing psychiatric risk (Garmezy, 1985; Werner & Smith, 1982). This interaction is critical during infancy, particularly for those who are exposed to high risk environments, in order to support positive developmental patterns and instill a sense of trust (Erickson, 1963 in Benard, 1991). Rutter (1987) maintained that "experience of secure early attachments [to parents] makes it more likely that children will grow up with feelings of high self-esteem and self-efficacy" (p. 327). Radke-Yarrow and Sherman (1990) reiterated this idea, suggesting that they believed the two key factors of children who survived and thrived through adversity were "a *match* between a psychological or physical *quality* in the child and a core *need* in one or both of the parents that the child fulfills... [And] the child's clear conception that there was something good and special about himself or herself" (italics in original, p. 112).

The work of Spaccarelli and Kim (1995) also supports the importance of at least one good parental relationship during adolescence. Their research investigated victims, aged 10-17, of sexual abuse by one of their parents. Results from the therapy indicated that support from the non-offending parent played a significant role in helping the victims deal with stress from the abuse and maintain some



semblance of normalcy in school, activities, and peer relations after the abuse. Thomlison (1997) believed this held true for all forms of child maltreatment. Somewhat related is Berlin and Davis's (1989) examination on parental alcohol abuse. They noted that:

“Several studies... agree that the supportiveness of the non-alcoholic spouse is the most crucial variable in the degree of impact of alcoholism on the family. The more supportive the non-alcoholic spouse, the more likely there is available the nurturance, protection, guidance, and encouragement of individuation which children need for optimal development” (p. 101).

Another related protective factor that has been identified is “family connectedness”. Some academics insist this is the most powerful factor against risky behaviors in adolescents (Wolin & Wolin, 1994). This concept involved a shared sense of belonging and intimacy among all family members. Weist and colleagues (1995) looked at family cohesion (closeness and support) among a group of Grade 9 inner-city students in the U.S. and found it to be the only protective factor against discipline problems for boys. They also found that family cohesion was associated with a higher self-concept among girls.

Family support is a factor in family connectedness and is recognized as a protective factor for children against delinquent behaviors and poor mental health. Gilbert (1997) observed a decrease in childhood depression with the presence of high family support and a stable socioeconomic status. Wills & Cleary's (1996) study of 12-15 year old adolescents yielded similar results. In this study, parent support was found to mediate the effect of peer affiliations, and deviance-prone attitudes. It was also found to have a significant, inverse correlation with the levels

of marijuana, tobacco, and alcohol use. Jenson (1997) identified additional familial protective factors that mediate against adolescent drug and alcohol use which include: a small family size, low parental discord, a supportive relationship with siblings, parents, and members in the community, a commitment to school, and a belief in pro-social norms and values.

Sometimes an extenuating circumstance will prevent the formation of a healthy relationship with at least one parent. Chess (1989) says:

“There is... in certain circumstances a high virtue in distancing from noxious familial onslaught and undermining, in leaving behind irreconcilable conflicts, and in substituting alternative constructive social involvements which have the power to protect and to provide a second—or even a third—chance (p. 198).

Berlin and Davis (1989) called this “adaptive distancing”, and claimed it involved breaking away or emotionally disengaging from family dysfunctional behavior or parental crisis (Benard, 1991; Wolin & Wolin, 1994). Benard (1991) insisted that it was imperative for a resilient child “to stand away psychologically from the sick parent” (e.g., mental illness, parental alcoholism, etc.) (p. 4). Adaptive distancing has also been considered a protective factor where there are environmental problems.

The relationship that parents have with one another is also an important consideration. Good parental communication not only serves as a model for children (Hauser et. al., 1989), but also extends itself to good parenting methods (Rutter, 1987).

### Community and Social Networks

Negative factors which work against resilience include social problems such as teen pregnancy, alcohol, drug and child abuse. Fragmentation of schools and social systems, community life, and broken bonds among families all serve as risk factors and come as the result of a disintegration of naturally occurring social networks within a community. Schools, neighborhoods, and community settings are all examples of community and social networks that can provide external support systems to assist children in strengthening and reinforcing their coping efforts, while also helping them attain their self-defined goals. After interviewing a Canadian runaway and “throwaway” youth, Webber (1991) concluded that, in addition to having unconditional support of a dependable adult, the key to “beating the street” was the existence of opportunities and choices:

“Counseling and support services, both material and moral, must extend over the long haul until young people gain control over their chaotic lives.... They need re-schooling in alternative-education programs and student welfare rates that undercut the necessity for them to sell their bodies for supplemental income. They need to graduate into jobs with living wages and housing with affordable rents” (p. 240).

Benard (1991) insisted that when social support, care, and love is unavailable in the immediate family environment, it becomes “imperative that the school provide the opportunities to develop caring relationships with both adults and other youth” (p. 11).

A number of other studies have found that school environments can act as a protective factor for students (Henderson & Milstein, 1996; Rutter, 1984; Werner,

1989; 1990). School environments that provide students with responsible roles, resources, clear and high expectations, and opportunities to participate in a variety of extracurricular activities greatly increase the chances of student success. Safyer (1994) and Hauser (1999) specifically identified participation and achievement with school, community and church clubs as sources of resilience. In another study, it was found that youth participation in social activities was associated with higher self-esteem and less depression, fostered personality development and socialization, and encouraged students to channel their energy in acceptable ways. Benard (1991) insisted that the critical factor in developing resilience in youth was active involvement and participation in dialogue, empathy in the learning environment, and active involvement in decision-making. Rutter (1984, 1987) contended that success in the areas of extracurricular activities (crafts, music, sports) or academic performance were important protective influences. Werner (1990) discovered that, outside the family, favorite teachers played a positive role model in the lives of children. They not only facilitated the children's academic growth but also became their confidants, enhancing resilience in their emotional development. Rutter (1989) observed from a sample of 10 year old children tracked through secondary school, substantial differences emerged between the children who came from successful or unsuccessful school environments. In the successful schools, problem behaviors by youth decreased over time while they increased over time in the unsuccessful schools. Successful schools shared many of the same factors which fostered resilience within the family (e.g., academic focus, clear expectations and regulations, a variety of stimulating resources to draw from, caring personnel, and high level of student participation).



Even more influential than school environment, in terms of decreasing rates of problems in youth, are communities and neighborhoods rich in social networks. Garbarion's (1980) study noted that "findings from years of research into crime, delinquency, child abuse... are that communities and neighborhoods rich in social networks—both peer groups and inter-generational relationships—have lower rates of these problems" (in Benard, 1991, p. 15). Silva-Wayne's (1994) study documented similar outcomes of resilient foster children who aged-out of their child protection systems. He noted that these children,

"... joined, found, searched for and developed communities for themselves. These communities included groups and programs provided by the child welfare agencies responsible for the youths' care, religious communities, ethnic groups, athletic teams, foster families and their extended families, biological families, school groups etc. These community affiliations produced feelings of belonging and allowed the young person to identify with the values and status of a group larger than themselves" (p. 200).

A number of other studies claim that broader socioeconomic conditions can be important protective factors (Benard, 1991; Hauser, 1999; Mills, 1996).

"The most obvious manifestation of caring and support at the community level is the availability of resources necessary for healthy human development: health care, child care, housing, education, job training, employment, and recreation... The greatest risk factor for the development of nearly all problem behaviors is poverty" (Benard, 1991, p. 15).

### Summary Discussion of Protection Factors

Protective factors have received a lot of attention in the resilience literature lately. It is now becoming a major focus for communities to weave a broad and strong protective umbrella for all children, adolescents, and families through community-building and inter-network collaboration. There is still, however, a deficit in the literature with regards to the interaction effect of protective factors because a majority of the literature have studied protective factors in isolation. Interaction effects refers to “how” a protective factor develops, or to the process by which protective factors allow an individual to maintain competence in the face of adversity (Rutter, 1987).

“There has been much unhelpful dispute in the literature on the supposed buffering effect of social support because most investigators have assumed that the vulnerability (or protection) lies in the variable rather than the process. It does not and cannot... A protective process may even stem from a variable that itself provides a risk to health or to social functioning. For example... adoption probably carries with it an increase psychiatric risk for children from advantageous backgrounds but it may be protective for those born to deviate parents living in discord or deprivation” (Rutter, 1987, p. 317, 318).

Rutter (1987) has also suggested implementing the concept, “protective mechanism” when people’s lives turn in a positive direction: “when a risk trajectory may be redirected on to a more adaptive path” (p. 329). More specifically, he advised the resilience research redirect its attention to studying “turning points”, such as successful choices around education, work life, marriage, and parenting because of

their crucial developmental linkages. Silva-Wayne (1994) also thought that life transitions need to be more closely examined to learn how they influence an individual's part of life because they are "both end products of the past processes and instigators of future ones" (p. 31).

Bachay and Cingel (1999) discovered consistent themes around catalyzing events or turning points in the lives of graduate students who had suffered losses.

They wrote:

"Parents' divorce, the death of loved ones, or their own divorces were the markers they dealt with by a complete reframing of the experiences... These sad and difficult events stimulate personal epiphanies and were perceived as catalysts for change and growth. Such statements as divorce 'helped me become much less dependent,' 'I gained awareness and understanding... of unhealthy behavior,' and 'made me a strong, yet caring person,' reveal the refusal to be victimized and the strength to reframe adversity" (p. 170).

Other protective mechanisms that have been identified and written about include good fortune, timing, and opportunity. Hauser's (1999) work with resilient adolescents who had been diagnosed with a severe psychiatric disorder suggested that opportunity may have played an important role in their ability to adjust and become competent adults and parents. Silva-Wayne (1994) believes that, "Opportunities to learn, experience and try paths previously obscured, when offered to young people able to and ready to accept the challenge, or desperate to make a change, have modified or completely transformed the trajectory of lives" (p. 200). In her investigation of former foster children, she documented that such opportunities often simply involved an individual being:

“...exposed to a person, a course, a trip, a conference, a job, even a book, play or concert, the experiencing of which moved her or him, almost imperceptively, to a different perspective from which returning to the old perspective is an impossibility” (p. 201).

Protective processes can form resilient chains, much like strings of risk factors can be thought of as risk chains (Kirby & Fraser, 1997; Smokowski, 1998). Resilient chains consist of multiple factors that cumulatively promote positive outcomes. Similarly, Benson (1993) says that: “Assets appear to be additive the more one has, the less at-risk behavior... This evidence suggests, then, that strategies aimed at increasing assets will also bring a reduction in at-risk behavior” (p. 68).

### **Coping Strategies**

Coping strategies are learned and deliberate thoughts, behavioral responses, and feelings to stressors that allow an individual to “tolerate, escape, or minimize” the stressful environment (Dumont & Provost, 1999; Frydenberg & Lewis, 1993). Coping strategies are something one does, whereas resources are something one has; however, “Coping may involve developing or acquiring new resources (e.g., doing things together as a family to develop cohesion)” (McCubbin et al., 1985, p. 54). In a more general sense, “coping resources are similar to protective factors identified in research on risk and resilience, and coping has itself been characterized as a protective factor, with its absence considered a risk factor” (Smith & Carlson, 1997, p. 237).



The three types of coping strategies that have been identified in the literature are problem-focused, emotional, and avoidance coping strategies. Problem-focused strategies can be primary, active, or approach coping. These strategies actively attempt to modify stressors through behavioral and cognitive means (Herman-Stahl & Peterson, 1996). They have also been associated with overall well-being. Problem-focused coping may involve seeking information or advice, reflecting on possible solutions, accepting support from friends or family, and having a protective orientation (Copeland & Hess, 1995; Seiffge-Krenke, 1993b; Timko, Moos, & Michelson, 1993). A-COPE is a coping scale used in quantitative research to measure problem-focused strategies such as talking to a professional (teacher, spiritual leader, therapist), self-reliant strategies such as trying to figure out solutions independently, and independent decision making strategies (Patterson & McCubbin, 1987). Results from 6<sup>th</sup> grade students who were tested and re-tested a year later indicated that resilient adolescents could be differentiated from other groups by higher levels of mastery and approach coping, as well as by higher levels of optimism and lower levels of avoidance coping responses (Herman-Stahl & Peterson, 1996). Dumont & Provost (1999) also suggest that adolescents with high self-esteem or internal locus of control are more likely to use problem-focused coping skills to deal with stress.

Emotional coping strategies reduce psychological discomfort, change one's outlook, and regulate emotions without changing the stressor (Dumont & Provost, 1999; Seiffge-Krenke, 1993a; Smith & Carlson, 1997). Emotional coping strategies have also been called secondary or passive strategies and are often used in situations perceived as uncontrollable. The A-COPE scale has identified behaviors that could

be considered emotional coping strategies (Patterson & McCubbin, 1987). They include physical diversion (e.g., physical activity, employment, hobbies etc.), catharsis (e.g., crying, listening to music etc.), humor, and positive imagery (e.g., optimistic contemplation about the future). Smith and Carlson (1997) claim these types of strategies tend to require more maturity and are therefore utilized more often by older children and adolescents than younger children.

Strategies that allow a person to escape from, deny or avoid stressors are considered avoidance coping strategies. They may include repression, withdrawal, or expression of one's pessimistic attitudes (Dumont & Provost, 1999; Herman-Stahl & Peterson, 1996; Seiffge-Krenke, 1993b; Timko et al., 1993). Some avoidance coping strategies are adaptive, however most are considered negative. Examples of the latter which can be derived from the A-COPE scale (Patterson & McCubbin, 1987) include staying away from home, passive diversions (e.g. eating, sleeping, watching TV, playing video games etc.), blaming, use of drugs, and alcohol abuse.

Avoidance type coping strategies have been linked to maladaptive and unhealthy behaviors. For example, passive avoidance coping strategies in adolescence have been correlated with psychiatric problems, depressive symptoms, low social-support satisfaction, low self-esteem, and poor social adjustment (refer to Dumont & Provost, 1999 for literature review). In a study of nearly three hundred 8<sup>th</sup> and 11<sup>th</sup> grade students, low self-esteem and vulnerability were found to be associated with the use of passive-avoidance coping strategies (Dumont & Provost, 1999). The researchers of this study hypothesized that "adolescents who do not have a high self-esteem are more likely to choose avoidance strategies (e.g., drug

consumption) than adolescents who have a high self-esteem and are involved in their community” (p. 355).

Research that studied coping strategies of suicidal and non-suicidal youths found that the major difference between these groups was the use of social withdrawal and wishful thinking strategies utilized by the suicidal adolescents (Spirito, Overholser, & Stark, 1989, p. 219). Another study found that suicidal adolescents had more problems with the stress appraisal process, rather than with the development of alternative solutions (Wilson et al., 1995).

The immediacy of a crisis event is another factor that has been shown to influence the choice of coping strategies. Adams (1999) found that:

“During the event, a child may use different self-made strategies... designed to help survive the current situation. Some common ones are to postpone strong, emotional feelings, try to stay where you are unnoticed... make believe... use positive self-talk throughout the traumatic event. After the crisis has passed, other strategies resilient survivors have used are... talk only to those you really trust, keep your feelings frozen until you are in a safe place, believe you are different from your parents, do not give weight to others’ criticism... know that it can happen again and plan and prepare, dream about when things will be different” (p. 17).

Gender and adolescent coping strategies have also received a great deal of attention in the literature. Although the research is far from conclusive, multiple studies have found that females actively seek out social support more than males, who instead used avoidance and aggressive coping strategies (Stark et al., 1989). Bird and Harris’ (1990) findings further buttress this notion. In their study of 8<sup>th</sup>



grade students, they found that females turned to social supports such as crying or talking to a friend, whereas males used more venting and vocal strategies such as swearing or complaining than females. In another study of adolescents in grades 7 through 11, it was reported that females utilized more social support seeking, wishful thinking, and tension-reduction strategies compared to males, who used more physical recreation when dealing with stressors (Frydenberg & Lewis, 1993). In a different study that compared coping behaviors between normal and clinical samples of adolescents, it was found that as females from the normal sample matured and grew older, they would seek advice, help, comfort, and sympathy (e.g., actively cope) more often than males (Seiffge-Krenke, 1993b). Males from the normal sample on the other hand, were more likely than females to use internal coping strategies like evaluating a situation in an optimistic manner. Interestingly, these results and gender differences did not hold true for the clinical sample.

Gender differences may be a result of different socialization practices (Copeland & Hess, 1995). Whitesell et al., (1993) alleged that, "Girls... are more typically embedded in a subculture of intimate friendships, based on trust and loyalty... The approach strategies are better adapted to their mores" (p. 538). Conversely, male socialization may be associated with their use of expressive and aggressive coping strategies. Whitesell, Robinson, and Harter (1993) theorized that the nature of a situation makes gender differences evident with regard to preferences for certain coping strategies. In a hypothetical scenario proposed to females that involved one of their friends spreading unkind rumors, females reported a more significant preference for using approach strategies rather than expressive strategies than their male counterparts. In another proposed hypothetical situation that



involved a physical attack situation however, more females than males claimed they would likely employ the use of expressive strategies.

### Summary Discussion of Resilience

*“What we define as resilience is turning out to be an interactive and systemic phenomenon, the product of a complex relationship in inner strengths and outer help throughout a person’s life span. Resilience is not only an individual matter; it is the outward and visible sign of a web of relationships and experiences that teach people mastery, doggedness, love, moral courage and hope”.*

-Butler, 1997, p. 26

Current resilience theory is rooted firmly in an ecological systems perspective, which acknowledges the differing degrees of individuals’ well-being. For many years, however, there was insufficient agreement on the various factors that were thought to contribute to resilience or define resilience in certain populations. Resilience factors began to emerge from early studies conducted by researchers such as E. Werner & R. Smith (1982), N. Garmezy (1985, 1993), and M. Rutter (1987; 1995). Since then, these factors have been rediscovered, reinforced, and added to by other researchers. S.J. Wolin & S. Wolin (1993), for example reinforced Werner and Garmezy’s resilience factor of trusting relationships; F. Loesel (1992) reinforced Werner’s resilience factor of emotional support outside the family; and R. Brooks (1992) and Wolin & Wolin (1993) reinforced the resilience factor of self-esteem. J. Segal & H. Yahraes (1988) added the resilience factor of

encouragement of autonomy, and D. Mrazek & P. Mrazek (1987) added hope, responsible risk taking, and a sense of being lovable. A. Osborn (1990) and M. Wang, D. Haertel & H. Walberg (1994) contributed school achievement to the resilience factor list while J. Garbarino et. al. (1993) added belief in God and mortality. U. Bronfenbrenner (1979) had already added unconditional love to the list. Earlier contributions were referenced from more recent publications.

The resilience literature, while expansive and informative, has generally agreed that the interplay of stress, risk, coping and protective factors have significant effects on levels of resilience and should thus be included in discussions of resilience. Researchers have attempted to approximate an actual “percentage” of resilient children but come up with varied results. Garmezy (1993) estimated that 50 percent of children living in poverty do not repeat this pattern in adulthood. Benard (1991) claimed that, “while one out of four children of alcoholic parents develops alcohol problems, three out of four do not” (p. 2). Werner and Smith (1982) concluded that it was even unusual for more than 50% of children who are exposed to potent risk factors to develop serious disabilities or persistent problems. This conclusion is similar to Chess’s (1989) who stressed that “no matter how high the risks, morbid outcomes do not reach 100 percent” (p. 181).

Thus, it can be said that while stress and adversity can lead to poor choices and unhealthy lifestyles, they can also create healthy and productive individuals. Unhealthy consequences have been identified as at-risk indicators and can include problems like substance abuse, suicide, depression, theft, sexual activity, eating disorders, and school absenteeism (Benson, 1993). Poor long-term outcomes are not predicted by “single incidences of adventure or experimentation, but persistent



patterns of health-compromising and future-jeopardizing choices” (Benson, 1993, p. 32). On the other hand, it is possible for some children to experience prolonged adversity or deal with multiple stressors and still emerge with healthy self-esteem, secure identities, independence, and the ability to make future educational and work-related plans for themselves.

Critical elements of resilience that have been discussed at length in the literature include stress and risk factors, protective factors, and coping strategies (Smith & Carlson, 1997). The question left unanswered, however, is what the interaction between these sets of factors is that enable individuals to overcome adversity in their lives. Kirby and Fraser (1997) admit that this is not an easy question to answer: “The existing data indicate that protective factors do indeed interact with risk factors, making it clear that processes whereby risk and protective factors lead to resilience are complex and, at least in part, nonlinear” (p. 18). The current stress and coping theory recommends that protective factors and resources can serve to modulate or buffer the effects of stress.

### **Edith Grotberg’s Model of Resilience**

Edith Grotberg, arguably one of the most prominent figures in the field of resilience in children, has dedicated a great deal of her work to examining and trying to understand why some children, their families and communities that they live in survive and thrive against all odds. She is particularly interested in understanding the interacting effects of resilience in different contexts (Grotberg, 1994; 1995). Grotberg (1997) claims that children who understand the language of resilience have

a better chance of recognizing resilience in themselves and in others. Having and understanding resilience also helps children learn how to promote it in their lives.

Grotberg’s (1995) model of resilience consists of three sources of resilience she believes children must have in order to overcome adversity. She named these sources simply, “I Have”, “I Am”, and “I Can” (p. 11). These sources identify 36 qualitative factors that Grotberg believes contribute to resilience. “I Have” reflects the supports, values, role models, and limits a child has. A child with the “I Have” source of resilience has people around him/her who he/she trusts and who loves them, and people who show them how to do things correctly and who want them to do things on their own. The “I Am” source of resilience includes constructs like self-esteem, empathy, autonomy, responsibility, hope, and altruism. In Grotberg’s resilience model, “I Am” reflects inner strength. A child with the “I Am” source of resilience is able to reflect interpersonal and problem solving skills. Finally, the “I Can” source of resilience refers to mastery in skills such as communication, problem solving, and behavioral control. A child with the “I Can” source of resilience is able to talk to others about things that frighten him/her and can control himself/herself when he/she feels like doing something wrong or dangerous. Figure 1 offers a summary of the “I Have”, “I Can”, and “I Am” sources of resilience in children with a more detailed explanation of each following.

Figure 1: Promoting Resilience: Action Model (Grotberg, 1997)

‘I Have’	‘I Am’	‘I Can’
<i>Trusting and loving relationships with others:</i> parents, siblings, teachers, friends.	<i>Lovable:</i> the child possesses, or is helped to develop, qualities that appeal to others.	<i>Communicate:</i> the child is able to express feelings and thoughts, and listen to those of others.
<i>Structure at home:</i> clear rules and routines, comprehensive and fair	<i>Loving:</i> the child is able to express affection to others, and is sensitive to their	<i>Solve problems:</i> the child can apply themselves to problems, involve others



sanctions when breached, praise when followed.	distress.	where necessary, and be persistent.
<i>Role models:</i> parents, other adults, peers, siblings, who model good behavior and morality.	<i>Proud of myself:</i> the child feels they have the capacity for achievement and resists discouragement.	<i>Manage my feelings:</i> know and understand emotions, recognize the feelings of others, and control impulsive behavior.
<i>Encouragement to be independent:</i> people who offer praise for growing autonomy.	<i>Responsible:</i> the child accepts and is given responsibilities, and believes that their actions can make a difference.	<i>Understand my temperament:</i> have insight into their personality and that of others.
<i>Access to health, education and social care:</i> consistent direct or indirect protection for physical and emotional health.	<i>Hopeful and trusting:</i> the child has faith in institutions and people, is optimistic about the future and is able to express their faith within a moral structure.	<i>Seek out trusting relationships:</i> the ability to find people—peers or adults—in whom they can confide and develop mutual trust.

‘I Have’

The “I Have” factors can best be summarized as the external resources and supports that promote resilience in children. These “I Have” factors lay the foundation for which the “I Can” and “I Am” factors of resilience are developed. For instance, before a child is aware of who he/she is (“I Am”), or what he/she is capable of doing (“I Can”), he/she needs to have established the external supports and resources that give his/her feelings of safety and security. Feeling safe and secure are at the core for developing resilience and continue to be important through childhood. The “I Have” factors of resilience can be broken into 5 parts:

- “I Have” Trusting Relationships: This includes parents, other family members, teachers, and friends who love and accept the child for who they are. While children of all ages require unconditional love from their parents and primary caregivers, they also need love and emotional support from

other adults as well. The love and support received from others may also compensate for a lack of unconditional love from parents and caregivers that the child may be experiencing (Grotberg, 1997).

- **“I Have” Structure and Rules at Home:** The means having parents who establish clear rules and routines, expect the child to abide by these rules, and can rely on the child to do so. Rules and routines include various tasks that the child is expected to perform. Parents also state clearly and make understood limits and consequences of behavior. When rules are broken, the parent helps the child to understand their wrong-doings, encourages the child to tell his or her side of what they think happened, is punished when needed, and is then forgiven and reconciled with the adult. Punishment never includes physical harm to the child. Children that abide by set rules are praised and thanked (Grotberg, 1997).
- **“I Have” Role Models:** Role models can include parents, other adults, older siblings, and peers who act in ways which show the child desired and acceptable behavior, both within the family and towards outsiders. These people demonstrate how to do things, such as dress or ask for information, and encourage the child to imitate them. They also serve as models of morality and may introduce the child to the customs of their religion (Grotberg, 1997).
- **“I Have” Encouragement to be Autonomous:** Adult figures, especially parents, who encourage the child to do things on his or her own and to seek help as needed helps the child be autonomous. Praise is given to children when they demonstrate initiative and autonomy. Help is offered to the child,



either through practice or conversation, to do things independently. Adults are aware of their child's temperament, and their own temperament, so they can adjust the speed and degree to which they encourage autonomy in their child (Grotberg, 1997).

- **"I Have" Access to Health, Education, Welfare, and Security Services:** This means that the child, either independently or through their family, can rely on consistent services to meet any needs that cannot be fulfilled by the family. This includes doctors, schools, teachers, social services, and police and fire protection (Grotberg, 1997).

### **'I Am'**

The "I Am" factors can best be summarized as the child's internal, personal strengths. These factors include feelings, attitudes, and beliefs within the child. The "I Am" factors of resilience can also be discussed in 5 parts:

- **"I Am" Lovable and My Temperament is Appealing:** Children are very aware of people who like and love them, and also those who do not. A child will do endearing things for others that help to make him or her more lovable. Children are also sensitive to the moods of others and often know what to expect from them. A child with this characteristic is able to find an appropriate balance between exuberance and lethargy when responding to others (Grotberg, 1997).
- **"I Am" Loving, Empathic, and Altruistic:** This means that a child loves other people and is able to express that love in a variety of ways. The child cares about what happens to others and will express that care through words

and actions. The child is also able to identify with the discomfort and suffering of others and readily wants to do something to give comfort, or share the suffering (Grotberg, 1997).

- **“I Am” Proud of Myself:** Children who are proud of themselves know that they are important and feel proud of who they are and what they can do and achieve. The child does not let him/herself be belittled or degraded by others. When there is a problem in the child’s life, confidence and self-esteem help to sustain him/her (Grotberg, 1997).
- **“I Am” Autonomous and Responsible:** An autonomous and responsible child is able to do things on his/her own and accept the consequences of his/her behavior. This child feels that what he/she does makes a difference in how things develop and is willing to take responsibility in the outcome of choices he/she makes. The child also understands the limits of control he/she has over events and recognizes when others are demonstrating responsible behavior (Grotberg, 1997).
- **“I Am” Filled with Hope, Faith, and Trust:** This means that the child believes there is hope and that there are people and organizations that can be trusted. The child also has a sense of right and wrong, believes that right will win, and readily wants to contribute to this. This child is confident and has faith in mortality and goodness. He or she may express this as a belief through their chosen spirituality (Grotberg, 1997).



**'I Can'**

The "I Can" factors include the child's social and interpersonal skills that are learned by interacting with others and from those who teach them. The "I Can" factors of resilience are divided into 5 parts:

- **"I Can" Communicate:** A child who feels he/she they can communicate is able to express his/her thoughts and feelings to others. This child is also able to listen to what others are saying and is aware of what he/she are feeling. The child can also reconcile differences and is able to understand and act appropriately on the results of the communication (Grotberg, 1997).
- **"I Can" Problem Solve:** This means that the child is able to assess the nature and scope of a problem and determine what he or she needs, including seeking the help from others, in order to find resolution to the problem. The child is also able to negotiate solutions with others and is able to find creative and humorous solutions when appropriate. He or she is persistent and will remain committed to a problem until it is solved (Grotberg, 1997).
- **"I Can" Manage my Feelings and Impulses:** A child with these attributes can recognize his/her feelings, identify emotions, and express them in words or behaviors that do not violate the feelings and rights of others. This child is also able to manage his/her impulses to hit, to run away, to damage property, or to behave in any other manner that is harmful and socially inappropriate (Grotberg, 1997).
- **"I Can" Gauge the Temperament of Myself and Others:** This indicates a child that has insights into his/her own temperament as well as the temperament of others. The child is also aware of how much time is needed

to communicate a message, when he/she needs to take action, and how he/she can manage various situations (Grotberg, 1997).

- “I Can” Seek Trusting Relationships: This means that the child can find someone such as a teacher, parent, another adult, or friend to ask for help, to explore ways to solve personal and interpersonal problems, to discuss conflicts, and to share feelings and concerns (Grotberg, 1997).

Grotberg says that a child does not need all of these features to be considered resilient, but says that having one trait alone is not adequate when trying to overcome difficulties (Grotberg, 1997). For example, if a child feels loved (“I Have”), but does not have inner strength (“I Am”) or social interpersonal skills (“I Can”), the child is not resilient. Similarly, if a child has a great deal of self esteem (“I Am”), but lacks the skills needed to communicate with others and problem solve (“I Can”), and does not have anyone to help him or her (“I Have”), there can be no resilience. Even if a child is able to speak well and express himself/herself (“I Can”), he/she is not considered resilience if he/she has no empathy (“I Am”) or does not learn from role models (“I Have”). Resilience is thus a result of a combination of these features. Said in another way, each of the “I Have”, “I Am”, and “I Can” factors suggest several actions that children and their caregivers can take to promote resilience, however, the degree to which they are used varies among individuals. Generally, the age of the child determines how he/she will rely on their “I Have”, “I Am”, and “I Can” resources. As a child gets older and begins to mature, the more he/she will likely shift their resilience on outside supports (“I Have”) to his/her own skills (“I Can”). In the same way, as children get older, they will also be developing



and strengthening their personal attitudes and feelings (“I Am”). Moreover, while some individuals may utilize a few of these factors and others considerably more, it is believed that the larger the pool of possibilities available, the more options and flexibility children, parents, and caregivers have when selecting appropriate responses to any given situation.

Resilience is a basic human capacity nascent in all children that can be promoted by parents and caregivers through their words, actions, and the environment they provide. However, while features of resilience may seem obvious and relatively easy to acquire, according to Grotberg (1995), an alarming number of children are not resilient. Furthermore, many parents and caregivers are not playing an active role in helping their children become resilient. In the International Resilience Research Project, only 38% of thousands of responses indicated resilience (Grotberg, 1995; 1997), suggesting that resilience may not be as easily learned as initially thought. Grotberg claims that many adults impede resilience in their children by giving mixed-messages leaving them feeling helpless, sad, and unloved. Failure to promote resilience may reflect a lack of knowledge about how to help children feel supported, develop interpersonal skills, and develop inner strength (Grotberg, 1994).

### **Summary Discussion of Grotberg’s Model of Resilience**

Grotberg says that the universal capacity for resilience is developed and nurtured from factors of: (1) *external supports and resources* she calls “I Have” supports that include: trusting relationships, access to health, education, welfare, and security services or their equivalent, emotional support outside the family, structure

and rules at home, parental encouragement of autonomy, stable school environments, stable home environments, role models, and religious organizations/morality (Grotberg, 1995c); (2) *inner personal strengths* she refers to as “I Am”, that include: a sense of being lovable, autonomy, appealing temperament, achievement orientation, self-esteem, hope, faith, belief in God, morality, trust, empathy/altruism, and locus of control (Grotberg, *ibid*); and (3) *social, interpersonal skills* she terms “I Can”, that include: creativity, persistence, humor, communication, problem solving, impulse control, trusting relationships, and intellectual skills (Grotberg, *ibid*). While definitions of these terms vary depending on the researcher and nature of the study, a common trust is that resilience is promoted by factors *provided* around the child (“I Have”), by factors promoted and *developed* within the child (“I Am”), and by factors *acquired* by the child (“I Can”). Dealing with adversity requires a dynamic and balanced interaction of these factors.

### Third Culture Kids and Resilience

*Third Culture Kids adapt, find niches, take risks, fall and pick themselves up again.  
Many indicate they feel at home everywhere and nowhere.*  
-Useem, 1963

*According to my passport, I'm coming home.”*  
-Eakin, 1999

### A Historical Perspective of Third Culture Kids

While the literature on the subjects of TCKs and resilience is new, TCKs themselves are not a new phenomenon. TCKs can be traced back to the first traders and missionaries on the ancient caravan routes that gave birth to the expatriate family and ultimately the TCK. Only in the last fifty years, however, has the



number of such TCKs, or “Global Nomads” as they are sometimes referred to in the literature, emerged as a phenomenon of appreciable size and become visible to researchers and practitioners in the social science, anthropological cultural studies, and psychological fields (Salmon, 1987; Cottrell & Useem, 1994).

A rich base of empirical data has emerged within the last twenty years documenting the TCK experience. A number of specific areas have been studied such as TCK identity, TCK delayed adolescence, and TCK reverse culture shock, to name just a few. It is important to note that while the TCK literature is beginning to emerge on an international scale, to date, most of the TCK literature is primarily focused on the American TCK. The school that is the focus of this study is an American school in Singapore, thus the focus of this TCK literature review will be largely based on the literature that has emerged about the American TCK.

The roots of TCK research are located in the early work of Ruth and John Useem, noted intercultural scholars who first coined the term “Third Culture” (Useem et al., 1963). They used the term to describe the experience of those who lived between two cultures. Useem’s research suggested that these individuals over time became not fully a part of their culture of origin nor fully a part of the host country in which they lived, but part of something else, a merging and melding of the two into a “thirdness” (Pollock & VanReken, 1999). This mode of thinking about culture is a departure from what had traditionally been discussed in the literature about culture. The “Third Culture” concept requires the reader to consider a much broader application of the word “culture” that is not only grounded in a geographic location but one that encompasses a variety of other considerations.

Nowadays, books and journal articles written by practitioners, Adult Third Culture Kids (ATCKs) and parents of TCKs exist that document the TCK experience and serve to supplement the empirical research (Bell, 1996; Eakin, 1988; Eakin, 1999; Erwin, 1985; LaBrack, 1983; Labrack & Connery, 1992; McCaig, 1996; McCluskey, 1994; Pascoe, 1994; Pollock & VanReken, 1999; Schaetti, 1995a; Schaetti, 1996b; Schaetti, 1996c; Schaetti & Ramsey, 1999b; Smith, 1991a; Smith, 1996a; VanReken, 1987; VanReken, 1988; Wallach, 1982). Magazine and newspaper articles also contribute to the existing literature (Clift, 1991; Dissly, 1988; Killham, 1990; Kingston, 1993; Kittredge, 1988; Lefkow, 1994; Salopek, 1989; Tredre, 1995; Tyrrel, 1994), while autobiographical movies and novels provide a rich portrait of what the global nomad experience means to the TCK and others involved (Adleton, 1997; Denis, 1989; Godden, 1966; Kaye, 1990; Kingsolver, 1998; Lively, 1994; Meyers, 1995; Seaman, 1996; Seaman, 1997). Workbooks are even available that are designed to help facilitate the experience of families in the midst of transition (Banks & Evans, 1980; Blohm, 1996; Roman, 1999a; Roman, 1999b; Taber, 1997).

### **The Language of Third Culture Kids**

Unseem and Downie (1976) and Pollock (1985), the first who used the term *Third Culture Kids*, based their research on work with foreign affairs communities of the U.S. State Department. Pollock and Van Reken (2001) described a TCK as a young person who had lived in a culture other than his or her own for an extended period of time. The term *third culture* came about as a result of a merging of values and norms from the host country and those of the child's native country into a separate third culture. These highly mobile children integrate elements of those



cultures where they live with their own native culture into a third, different and distinct culture.

Over the years, the term “Third Culture” has also been adopted by those who live between not only two cultures, but between three or more cultures. The term “Third Culture Kid” eventually evolved as a new way to distinguish and describe the children of expatriates (Useem, 1993; Useem & Downie, 1976). In much the same way, “Adult Third Culture Kid” identifies the adults who the young TCKs become. In 1984, Norma McCraig, herself an ATCK, coined the term “Global Nomad” which is used today synonymously with the term TCK (Pollock & VanReken, 1999; Schaetti, 1998b). Both terms define this particular population:

Global Nomads (or TCKs) are persons of any age or nationality who have lived a significant part of their developmental years in one or more countries outside their passport country because of a parent’s occupation (Schaetti, 1993).

There are several key ideas held within this definition, each of them addressed by the literature which documents the TCK research (Pollock & VanReken, 1999; Schaetti, 1998b).

*Age:* Once a TCK, always a TCK. Even if as an adult, a TCK settles in one place and never moved again, the childhood and adolescent experiences of international mobility continue to exert influences (Fail, 1995; Giardini, 1993; Halliburton, 1996; Harper, 1986; Cottrell & Useem, 1994).

*Nationality:* While many of the studies to date on TCKs stress the American experience, TCKs are of all nationalities. The national demographics of any international school worldwide illustrate this (Schaetti, 1996c).

*Significant:* Although research literature documents a clear correlation between the length of time a TCK actually lives abroad and the influence of that experience on his or her identity development (Downie, 1976; Eriksen, 1999; Gleason, 1970; Iwama, 1990), the research does not discount the profound significance a relatively short sojourn can have on adolescents and children. Thus, “significance” is subject to personal interpretation, leaving the individual to decide if the experience was significant for himself/herself.

*Developmental years:* In defining “developmental years”, the TCK literature consistently adheres to the standard set in the psychological literature as birth to adolescence (Gage, 1997a; Gage, 1997b), with the years of two to seven considered the years of primary socialization (Berger & Luckman, in Taft, 1981). The literature also uses TCKs’ graduation from secondary school as the upper-level boundary when determining “developmental” years. This reflects the significant role that schooling plays on the TCK experience (Downie, 1976; Gleason, 1970; Pollock & VanReken, 1999). More importantly, perhaps, is that international mobility is experienced while a person’s fundamental sense of self is developing.

*One or more countries:* Some TCKs move frequently while others live in a single host country their entire time abroad. The TCK literature claims that even those who live in a single host country throughout their childhood experience a sense of



‘mobility’ as they, along with their families come and go on furlough or home-leave, and as members of the broader expatriate community repatriate (Pollock & VanReken, 1999; Useem & Downie, 1976). High mobility is a defining characteristic of the TCK experience, whether or not the TCK is actually changing host countries. Also, cultural differences between the host country(s) and the family’s country of origin seem to impact the TCK experience the greatest during expatriation and repatriation periods.

*Passport country:* This term highlights an important reality in the lives of TCKs. A consistent theme throughout the TCK literature is that the country their parents’ call “home” may be for the TCK no more of a reality than the passport with which they travel (Bell, 1996; Cottrell, 1993; Downie, 1976; Eakin, 1988; Eakin, 1999; Gerner et al., 1992; Giardini, 1993; Harper, 1986; Jordan, 1981; McCaig, 1996; McCluskey, 1994; Pollock & VanReken, 1999; Schaetti, 1996b; Smith, 1991a; Smith, 1996a; Smith, 1996b; Tamura & Furnham, 1993; Werkman, 1979). Identification is further complicated by those TCKs that are bi-national and have in fact two passport countries. Knowledge of “home” to TCKs is indirect, mediated by their parents’ memories, periodic family vacations, media, through host country nationals, and through the expatriate communities in which they live. Thus, while nationality to the TCK is relevant, it serves more as a cultural overlay for the TCK than a cultural foundation as it likely does for their parents (McCaig, 1996).

*Parent’s occupation:* While TCKs share some similarities in experience with immigrants and refugees, mobility based upon parental employment is very

particular to the TCK experience (Cottrell, 1993; Loewenthal & Schaetti 1989; Pollock & VanReken, 1999). Another consistent theme in the TCK literature is the influence played by the sponsoring organization on the TCKs' experience. Research has correlated its direct influence on where the family lives and consequent friendship and socialization patterns, TCK academic achievement, and TCK worldmindedness (Gleason, 1970; Hager, 1979; Krajewski, 1969). Not surprisingly, it has also been observed that the more TCKs build relationships with host nationals, the more worldmindedness they are likely to demonstrate. The influence of the sponsoring agency felt by TCKs often provokes the question: "What does your father do?" within the first few minutes of TCKs meeting their classmates (Downie, 1976; Useem & Downie, 1976). The answer typically falls into one of the following categories: international business, diplomatic service, missionary service, military service, international nongovernmental agency, international education, or a private entrepreneurial business (Downie, 1976).

The dynamics of the individual expatriate family coupled with the degree of international understanding and intercultural competence parents and guardians have also influences the TCK experience. The family is a crucial socializing agent that has the potential to play the most significant role when it comes to teaching TCKs how to successfully engage their internationally mobile childhoods and adolescences (Pollock & VanReken, 1999; Schaettii & Ramsey, 1999a). Pollock and Van Reken (2001) emphasized that it was the totality and inter-relationship of these characteristics that defined the TCK. To have a meaningful discussion about TCKs, it is essential to remember that it is an *interplay* of these factors—living in both a culturally changing *and* highly mobile world during the *formative* years—rather than



any single factor alone that leads to the evolution of both the benefits and challenges we describe (Pollock & VanReken, 1999, pg.39-40).

Pollock & VanReken have also come up with their definition of TCKs which is used extensively in the TCK literature, and will be adopted for this study. Their definition of a TCK is:

“...a person who has spent a significant part of his or her developmental years outside the parent’s culture. The TCK builds relationships to all of the cultures, while not having full ownership in any. Although elements from each culture are assimilated into the TCK’s life experience, the sense of belonging is in relationships to others of similar background” (p.19).

It should be noted that TCKs are also the children of missionaries, military personnel, diplomats, and business people who live outside of their native country, or country of passport origin, for extended periods of time (typically two or more years) during childhood, or what some psychologists call “identity building years” (Pollock and Van Reken, 2001).

### **Third Culture Kids: Challenges and Benefits**

While the TCK experience is not entirely unique, it is hardly the typical experience that their domestic counterparts experience growing up (McCraig, in Pollock & VanReken, 1999; Schaetti, 1999b). One of the most unique characteristics of an international upbringing is the presence of change. Change is ironically one of the few constants in the lives of these internationally mobile children. TCKs are very familiar with the relocation process, having themselves experienced it on a number of occasions, and having had to deal with the arrival and

often difficult departure of their friends who are also living a transient lifestyle. Dealing with a constant stream of change requires the TCK to learn how to become adaptable and flexible, often lessons which are learned much later in life (Cottrell, 1993; Fail, 1995; Gerner, 1993; Jordan, 1981; Useem & Cottrell, 1996; Werkman, 1986). Many TCKs attest to their “chameleon techniques”, a byproduct of their international rearing which helps them cope and adapt to new and changing social and cultural environments (Downie, 1976; Kidder, 1992; Harper, 1986; McCraig, 1996). Quite often it is the case that in learning how to adapt and be flexible to their ever-changing environments, a “forced extroversion” emerges whereby TCKs learn what to say and ask to get acquainted with strangers quickly (Gerner, 1993; McCraig, 1996). Their extensive experience in making and losing friends teaches TCKs how to quickly make friends, but also to exercise caution in committing to any long term relationship so that if the relationship ends, as their experience tells them it more than likely will, it is not as painful to part ways (Delin, 1987; Downie, 1976, Gerner, 1993; Grabner, 1992; Werkman, 1978). Inevitably, they develop a survival skill that causes them to maintain a certain distance between themselves and people they meet. A number of researchers have actually been able to link grief to the relationships that TCKs form (Gerner, 1993; Jordan, 1981; Pollock & VanReken; 1999; VanReken, 1988). Many parents of TCKs disenfranchise their children’s grief in an attempt to downplay the changes that are taking place from a recent relocation. It has been shown, however, that TCKs in transition do better if they are allowed to recognize and grieve over the losses involved in “moving to a new situation” (Grabner, 1992; Useem & Cottrell, 1996; Useem & Downie, 1976; Werkman, 1986).



Those who are successful in transforming themselves into “cultural chameleons” (McCraig, 1996) develop a measure of confidence in the process of change, perhaps because they have succeeded in it so many times throughout their time abroad (Grabner, 1992). It is probably not surprising that TCKs are considered by many to be uniquely independent and self-directed (Delin, 1987; Gerner, 1992; Jordan, 1981; Salmon 1987). In fact, many TCKs admit that they become so accustomed to change that life without it seems somewhat incomplete (Harper, 1986; Werkman, 1986). In their adult lives, this feeling of restlessness often generates periodic and regular change demonstrated by a series of cyclical jobs, relationships, or simply a regular rearranging of household furniture (Gerner, 1993; Useem et. al., 1993). McCraig summarizes the benefits of an international upbringing:

“The benefits of this international upbringing need to be underscored:

In an era when global vision is an imperative, when skills in intercultural communication, linguistic ability, mediation, diplomacy, and the management of diversity are crucial, global nomads (TCKs) are better equipped in these areas by the age of eighteen than many adults. Why? Because they have spent years developing these skills as strategies for survival in times of transition. Without them they would be unable to gain social entry into international or host culture children’s groups when moving from one overseas posting to another” (McCraig, 1996, p. 100).

Despite these benefits, it is not always easy for TCKs to have a multi-dimensional view of the world, especially if those around them do not (Cottrell,

1993; Gerner et. al., 1992; Smith, 1996a; Smith, 1996b). American TCKs especially often voice their frustration with their passport country nationals accusing them of living in nothing more than a “homogenous supermarket, shopping center, consumer-goods-oriented culture” (Werkman, 1978, p. 121). In turn, TCKs sometimes find themselves challenged by those with less international understanding and can be perceived by others as arrogant when speaking of their “exotic” adventures (Pollock & VanReken, 1999; Useem & Downie, 1976). This is less a matter of confused loyalty than a deep misunderstanding of the complexity of the human condition (Kidder, 1992; Schaetti, 1996b, Smith, 1996a).

A frequent theme in the TCK literature is the feeling of rootlessness that many TCKs experience and its subsequent affects on their identity development (Pollock & VanReken, 1999; Smith, 1991a; Stelling, 1991; Useem & Cottrell, 1996; Werkman, 1978). Whether a TCKs parents are in the military or managing directors of a multinational company, almost all TCKs experience a moment when they realize that their adopted home means as much, if not more, to them than their passport country. Although seemingly benign to a monocultural individual, one of the most difficult questions TCKs are asked is, “Where are you from?” (Downie, 1976; Willis, Enloe, & Minoura, 1994). The question itself solicits a singularity of experience, from here *or* there. However, because TCKs do not grow up within a singular cultural context, their often multiplistic responses such as “from here *and everywhere*” confuses people that do not understand the background of TCKs. As a result, TCKs’ identity development often takes place in “bewildered isolation” (Werkman, 1978, p.125), resulting for some in a sense of “existential alienation” (Werkman, 1986, p. 245).



The crux of the issue for TCKs who are inevitably confronted with monocultural expectations is resolving a multicultural self-concept through their internationally mobile heritage, and learning how to express their identity when living as an adult in a monocultural system. The struggle to articulate an answer to this seemingly simple question is a burden that many TCKs struggle with until which time they are allowed a more broad understanding of “home”. Inevitably, most TCKs will tend to create a sense of roots through memories, memorabilia, and relationships, rather than geography (Delin, 1987; Downie, 1976; Fail, 1995; Pollock & VanReken, 1999).

As TCKs grow up and struggle within themselves to assume an identity that incorporates their experiences, many often find themselves unable to feel they are an integral part of their host country or home country because they are never completely familiar with the lingo or expectations of others. Where they feel most like themselves is often in a surrogate culture, the Third Culture, which is created, shared, and carried by persons who are relating societies to each other (Langford, 1998, p. 29). While developing a sense of belonging to both their host culture(s) and passport culture(s), they do not have a sense of total ownership in any. Elements from each culture and from the experience of international mobility are blended, creating a commonality with others of similar experience (Schaetti, 1993).

As many TCKs grow up, they come to understand their hybrid identity and realize the concept of home is best represented through a plurality of relationships rather than a single geographical location. It is not “here or there” but an “everywhere”, that makes TCKs global citizens of the world (Bell, 1996; Delin,



1987; Harper, 1986; Pollock & VanReken, 1999) who together share a unique cultural heritage.

### **Cultural Influences and Their Impact on Third Culture Kids' Resilience**

Adolescence is a complicated period marked with substantial developmental challenges and many first-time events such as puberty, intimate friendships, dating, and identity development to name just a few. The cognitive, contextual, and language systems needed to comprehend these experiences are generally still forming at this period of development. Adolescents are constantly attempting to make sense of their rapidly changing physical, sexual, and reproductive maturity, establish emotional and psychological independence from adults, and learn how to be accountable for adult values while demonstrating authority-appropriate respect and appreciation. They are also busy forming positive and healthy relationships with their peers, studying more difficult and abstract academic materials, dealing with more complicated ethical and moral issues, and beginning to identify with and implement adult occupational goals (Fuligni, Tseng, & Lam, 1999). In sum, adolescence is a time of change and self-discovery which, when managed constructively, can promote personal growth and well-being.

Whether traveling overseas for the first or the fifth time, it is not uncommon to experience what has commonly been described in the literature as "Culture Shock". This occurs when an individual is confronted with a culture that is vastly different from one's own because the individual's values, sense of identity, and core relationships have been developed in a monocultural context, or alternatively been influenced and subsequently altered by a culture other than their own (Nadeau, 2003). Confusion and disorientation are the most common feelings when a person

experiencing culture shock attempts to assimilate and accommodate an understanding of the new culture by using cultural constructs from their culture. Culture shock and one's ability to deal with and eventually overcome its obstacles are key determinants of a person's resilience.

When adults relocate to another country for personal or professional reasons, they still generally see themselves through monocultural lenses as people who are merely living in another place or culture. For all intents and purposes, their identity is already developed and remains intact. Unlike these adults, TCKs move back and forth from one culture to another while critical developmental tasks - such as forming a sense of personal identity - are taking place (Pollock & VanRaken, 2001). Caspi (1998) claims that the cultural settings in which a child grows up play a major role in formulating the laws that govern their development. This process is complicated when the cultural setting is constantly changing as a result of moving from one country to another. During these developmental periods and identity forming years, many TCKs experience the additional challenge of having to behave and respond in a culturally appropriate and acceptable manner (Meyers, 2001). Those that fail in this task may experience bouts with depression which in turn affect their resilience and subsequently their ability to deal with and be strengthened by the inevitable challenges they will face living in a foreign country and culture.

### **Parent's Role in Peer Relations in Cross Cultural Societies**

An unfortunate but very common feature for many TCKs is frequent separation from immediate family members, usually parents. Separation from parents during adolescence does not provide the child with the "typical"



opportunities to challenge and test parental values and choices (Pollock and Van Reken, 2001). Yeung, Sandberg, David-Kean, and Hofferth (2001) found that in supportive families, parents serve as partners with whom the child can acquire skills that teach them how to successfully interact with other children and adults. The manner in which parents interact with their children via advice, support and direction are also related to the children's social behavior with peers and adults. Parents also have the opportunity to influence their child's peer relationships through outlets such as coaches or educators (Frank & Livingston, 2000). They offer support, advice, and direction regarding strategies their children can use in interactions with their peers. Due to increased work demands placed on expatriates parents however, many children are forced to find other avenues to learn these lessons as well as gain an understanding and appreciation of cultural practices. This problem may be further complicated for TCKs if a parent misinterprets cultural factors and then passes that interpretation on to their child (Saraswathi, 1999). In another study, Neal and Erick-Horbury (2001) found evidence that suggested a failure of parental support during these formative years may complicate a child's sense of belonging and acceptance within social and peer groups. Family structures can thus have a major effect on the overall development of a child, particularly in determining the outcome of a child's behavior and mode of interaction with their peers and other adults.

Not surprising then, research by Kammerman (2000) strongly recommended raising children in a household with two mutually committed parents who respected and supported one another, had social and financial resources to support the family, and were both actively engaged and committed to raising their children. It is



important to note that a two parent household does not necessarily guarantee successful families and effective parenting. The research does suggest, however, that the risks for emotional, behavioral, and educational problems are notably lower among children with parents who were consistently involved in the parenting process (McLanahan & Sanderfur, 1998).

For TCKs, the issue of parenting is complicated by work and travel obligations that are common in international employment. Working internationally often places considerable time demands on the employee, inevitably translating into significant time away from the home and family. In addition to regular business operations and demands, employees are often subject to long work hours and work weeks. Business negotiations extend far beyond the confinements of the office, requiring frequent travel within the country and to other countries.

TCKs can be affected by this on a number of levels. First and foremost, they are often raised primarily by one parent while the other is working or living in another country for work. Domestic maids that live with the family often segue into the role of the absent parent. In a study conducted by Glasgow and Gouse-Shees (1995), it was found that when one or more parent was absent from the home for a prolonged period of time, the child at home began to feel a sense of abandonment and resentment towards the parent that left them and would respond by detaching and distancing themselves from that parent. Additionally, it was found that upon reunification with the parent, the child would mourn the *loss* of those who cared for them in their parent's absence and find it difficult to reestablish a relationship with the parent that had been away.

Parents may also have unrealistic behavioral expectations from their child. It is not uncommon for a parent to be upset by their ambivalent child who they mistakenly expected would demonstrate more appreciation for the sacrifices being made for them (Sciarra, 1999). Parents have also reported difficulties in reasserting control over their children after returning from an extended period of absence (Boti & Bautisa, 1999). Arnold (1991) actually found that reestablishing of authority in the family can be complicated by parental guilt, which then results in overindulgence and inconsistencies in their parenting practices. Depressive responses, discussed earlier as a major deterrent of resilience, have been found among children who have spent prolonged periods away from their parents (Rutter, 1971). Here again, it is important to note that literature on the topic of family separation may not accurately represent TCK experiences as a whole. It is possible that the literature overestimates the pathological responses to separations, as those families experiencing difficulties are the ones likely to present themselves for treatment and thus be documented. Nevertheless, it does provide some insight that may explain the responses that are being witnessed by TCKs who experience prolonged periods of time without their parents.

### **Siblings and Resilience**

Do siblings have any effect on a child's resilience? And if so, to what degree does their influence have on one's level of resilience? A growing body of literature in psychology has begun to acknowledge the influence siblings have on each other's emotional development. For instance, one particular study found that in families where one or more sibling was suffering from a chronic illness, well siblings were



found to suddenly become susceptible to anxiety, depressive symptoms, and somatic complaints. This study concluded that well siblings ended up with self-esteem issues and lower levels of resilience (Bluebond-Langer, 1996). In an earlier study by Luhtar, Anton, Merikangas, and Rounsaville (1992), it was found that individuals with drug addictions also had siblings who were at risk for developing a wide range of disorders, including depression and drug use. More current research by Paradis (2000) found that sibling substance abuse was a predictor for depression and drug disorders for both genders. Resilience risk factors have been identified within the family domain, including larger family sizes (Reinherz et. at., 1993); however, researches are quick to note that the data related to family size and resilience remains inconclusive. Other environmental factors such as poor socioeconomic status, family discord, divorce, and death of a spouse were also noted to negatively affect levels of resilience among children from large families.

### **Peer Interactions**

Different cultures determine the influence that peers and adults have on a child's social development. In Hispanic cultures for instance, children were found to be more family oriented and thus less influenced by their peers, with fewer incidences of deviant behaviors (Sue & Sue, 2003). Patterns of peer interaction differ within cultures as well. In a comparison study of urban and rural Israeli children, it was found that children reared in the countryside were more cooperative and supportive than city-reared children (Semans, Stone & Fish, 2000).

The process of understanding cultural factors affecting peer groups and peer group dynamics is a confusing topic in and of itself. This process is further



complicated for TCKs because they experience a number of different cultures that differ in the degree to which they emphasize the group and the individual. Collective societies such as China, Russia, and Japan operate in such a fashion whereby a person's identity is related to their membership and role in the larger group (Zeng, 2002; Fran, 1999). In contrast, more individual oriented societies like those in North America and many countries in Western Europe tend to relate a person's identity to one's personal accomplishment and contributions.

Peer relationships are shaped by these cultural orientations, similar to adult relationships. In a comparison study of social pastimes of American and Japanese teens, it was found that American teens generally chose to spend their free time socializing with friends, while their Japanese counterparts chose to spend their spare time reading, studying, or taking additional classes in school (Fukuzawa & LeTendre, 2001). The results of these choices seem predictable. Indeed the Japanese teens performed better than the American teens academically when measured by standardized math exams. American teens on the other hand had a more diverse social life which included going to parties, concerts, dances, movies, sporting events, and watching television with their friends. Japanese teens chose to spend time with their friends doing additional studying for school or just "hanging out" enjoying each others company.

TCKs are exposed to these cultural variations which can further confuse a process that is already inherently complicated. Acceptance into a peer group often requires a child to accept the values and behavioral norms of the culture in which they are living. The challenge for the child comes when these norms are undesirable or deviate drastically from what they have learned in the past. Peer influence and

pressure become exceptionally influential when issues are unclear (Taffell, 2001). Given that children are already dealing with numerous ambiguous issues that require careful judgment, peer influences can interject in either a positive or negative manner.

Pollock and Van Reken (2001) attributed cultural understanding to successful environmental interaction and life experiences. TCKs who transition among various cultures during formative years may find their identity development “interrupted”. Parker and Rumrill-Teece (2001) suggest that these transitions are the reasons TCKs experience what they termed “cultural marginality”. Children that experience cultural marginality feel like they do not fit into any culture they have lived in but instead find that they fit best on the margin or edge of them. TCKs are often cited as having similar feelings of being at home anywhere and nowhere at the same time.

### **Identity Development**

Since the notion of identity has been repeatedly referred to, it is necessary to take a moment and expand on how the notion of identity relates to the discussion at hand. Erik Erickson (1968), highly recognized for having initiated the modern identity discourse, noted that attempting to define “identity” presented significant challenges.

“Identity” and “identity crisis” have in popular and scientific usage become terms which alternatively circumscribe something so large and so seemingly self-evident that to demand a definition would also seem petty, while at other times they designate something made so



narrow for purposes of measurement that the over-all meaning is lost, and it could just as well be called something else (Erickson, 1968, p. 15).

Despite these risks, it seems necessary to begin by recognizing that the word “identity” means different things to different people. People inevitably define the term in accordance with their academic and professional disciplines (Huang, 1994; Martin & Nakayama, 1997; Pederson, 1991; Phinney, 1990; Seelye & Wasilewski, 1996). Nonetheless, a particular congruency does emerge.

Martin and Nakatama (1997) define identity as “the bridge between cultures and communication” (p. 64). Pederson suggests that we become more aware of our cultural identities through our interactions with people different from ourselves (1991). Grotevant (1987) claims identity is about the “exploration of alternatives and commitment to choices” (p. 204). Breakwell (1983) says identity is a label for “that uniqueness which differentiates one individual from the next” (p. 4). Weinreich (1986) suggests that:

“One’s identity is defined as the totality of one’s self-construal, in which how one construes oneself in the present expresses the continuity between how one construes oneself as one was in the past and how one construes oneself as one aspires to be in the future” (p. 307).

Identity has also been defined according to the many constructs through which it is considered. Some examples include racial, ethnic, cultural, national, immigrant, and sexual identity.

Erikson (1968) claimed that the search for identity in adolescence took place during a period that he termed the “fifth stage psychosocial development”. At this



stage, Erikson suggested that adolescents obtained the optimal feeling of identity when they had a solid sense of well-being. He wrote, “Its most obvious concomitants are a feeling of being at home in one’s body, a sense of ‘knowing where one is going,’ and an inner assuredness of anticipated recognition from those who count” (p. 165). Erikson also observed that “the adolescent, like a trapeze artist, must release his or her safe hold on childhood and reach in midair for a firm grasp on adulthood” (p. 173).

The search for identity by a child turns into a complex process because the child is simultaneously dealing with rapid physical and emotional changes, while at the same time is required to confront many imminent adult tasks and decisions. In an attempt to establish a sense of self, many children will accept the various roles and complications that the challenge of adolescence presents and still be left with a blurred self image and feeling of hopelessness.

TCKs do not escape the experience of adolescence. In fact, they undergo a process of identity development similar to that of other children, necessarily examining and measuring who they are and how they fit into society. The difference is that for TCKs this process often takes place later in life than it does with other adolescents. Useem and Cottrell refer to this phenomenon as “delayed adolescence” (1993). Delayed adolescence in TCKs can be attributed to a number of challenges that are unique to the TCK experience. These might include: a lack of cultural balance, separation from parents, an inability to understand or incorporate cultural rules and cues, incompatible educational and social factors, and frequent mobility.

Pollock and Van Reken (2001) suggested that the delayed adolescence many TCKs experience could be attributed to the fact that TCKs are generally not as free

as peers at home might be to test cultural rules during their teenage years. When living in a foreign country, TCKs are often expected to comply with certain standards, rules and status quo expectations if they hope to be accepted into the community. Sometimes their response to these restrictions is necessary for their own safety measures. During this process of accommodating one's self with the host culture's expectations, many TCKs unconsciously relinquish developing a full sense of identity and autonomy for themselves.

Part of a TCK's search for identity includes attempting to come to terms with why they view themselves as different from their more monocultural peers, and perhaps more importantly, what that will mean to them as they carve out their place in society. Herein, TCKs share the same dilemma with other traditionally marginal communities, be that marginality based on gender, sexual orientation, nationality, disability, race, or ethnicity.

As previously mentioned, the most difficult question so many TCKs struggle to answer is, "Where are you from?" (Downie, 1976; Willie, Enloe, & Minoura, 1994). To a monocultural individual, this question seems relatively benign, however, because the question itself solicits a singularity of experience, from here *or* there, it becomes difficult for TCKs to respond to knowing that their multiplistic response, from here *and everywhere* might not be understood. The crux of the issue for a number of TCKs who are inevitably confronted with monocultural expectations is resolving a multicultural self-concept through their internationally mobile heritage, and learning how to express their identity when living as an adult in a monocultural system.



The TCK literature is full of research that has studied the advantages and challenges inherent in a multicultural identity (For example: Adler, 1974; Parks, 1928; Roots, 1992; Seelye & Wasilewski, 1996; Stonequist, 1937). Individuals who consider themselves multicultural feel they are different from the broader society in which they live. They are, in effect, culturally marginal to the mainstream, because their experiences in many instances extend to the social and psychological. TCKs are by definition raised to plurality and as such contain within their experience the challenges of marginality and the benefits of multicultural capacity. Advantages of a multicultural identity include opportunities presented for both the individual and the broader society. Some academics claim that it is the global heterogeneity of cultures and the capacity to move among them that holds promise for the very survival of the human species (Bochner, 1981; Seelye & Wasilewski, 1996; Thornton, 1996).

As TCKs approach adulthood, possible feelings of anxiety, isolation, and sometimes depression surface as a result of their delayed adolescence. TCKs who experience frequent mobility, particularly during their formative years, may fail to arrive at a coherent and integrated identity (Storti & Delaney, 2001). Erikson (1968) called this experience “identity diffusion”, which for TCKs can translate into an inability to make commitments to themselves, to an occupational or ideological position, or to another person. Other possible outcomes for TCKs who experience a delay in adolescence are the development of a “negative identity” and a debased self image and social role as they transition into adulthood (Erikson, 1964).

Additionally, Rice and Dolgin (2002) found that for some adolescents, ethnicity was central to identity formation. Hence, language differences, physical



features such as skin color, and social standing are tremendously influential in molding minority adolescents' self-concept. This is a relevant consideration for adolescent TCKs who often find themselves in the minority as they transition from one culture to another (Atkinson, Morten, & Sue, 1998).

### **Third Culture Kids: Transition and Mobility**

It has been said earlier in this chapter that TCKs from different regions of the world have unique experiences in their own settings, however there are two shared experiences that TCKs everywhere experience: cross-cultural living and high mobility. These realities ultimately result in two major challenges for TCKs. The first is creating a sense of identity in the face of rootlessness that develops from their transient cross-cultural living (Pollock & VanReken, 2001). The second challenge for TCKs is coming to terms with the grief that ensues as a result of having to constantly establish, depart from, and re-establish relationships with peers, neighbors, parents, relatives, and teachers as they move around the world. A TCK's highly mobile upbringing means that the TCK will experience a number of "hellos" and "goodbyes" as they separate from support groups to which they may have only recently adjusted. Even if the TCK is not the one relocating to another country, it is highly likely that one or more of their friends is preparing for a move. Pollock & Van Reken (2001) note that it makes little difference whether the child is moving or alternatively having to say goodbye to a friend that is relocating; the grief they experience in either situation is very similar.

Ultimately, the high mobility that is signature to the TCK experience can impact the development of relational patterns and relationships. High mobility may

also prohibit the TCK from experiencing a successful social and cultural integration of the host country. Children who move also often experience social isolation and heightened stress levels (Potter et. al., 1998). In the most extreme case, highly mobile teens can be at risk for depression and suicide as was found in Kaplan's (2000) study. Durkheim's (1951) classic research on highly mobile children described both egotistic (resulting from a lack of integration of the individual into society) and anomic suicide (resulting from the lack of regulation of the individual in society and occurring when the individual can no longer cope with life situations). Durkheim's study concluded that where there is a presence of forces that encourage the individual to rely on their own resources, the greater the suicide rate will be. Interestingly, a more recent study conducted by Stockard and O'Brien (2002) on highly mobile teens concluded the same thing.

On a related note are those TCKs who successfully complete their secondary education overseas and are for the first time faced with the prospect of returning "home" for university studies. Many TCKs who have matriculated to their passport country for higher education have recounted that their transitions "home" were among the most stressful of transitions in their lives (Elder, King, & Confer, 1996). This is likely because TCKs often feel very little connection emotionally, socially, and culturally to the country from which their passport originates (Pollock and VanReken, 2001).

It is helpful to also look at related literature on experiences of loss to help broaden our understanding of what TCKs experience. Doka (1989) warned that if a TCK's loss goes unrecognized by parents and other figureheads, it could lead to "disenfranchised grief", whereby the TCK becomes silent and unresponsive to



others and his environment. Disenfranchised grief may also prolong emotions such as guilt, anger, hopelessness, and sadness in the TCK. In the life cycle of an international family, this process may repeat itself several times throughout the development of the child, which could in turn result in maladaptive responses from the child. Another type of loss is “Ambiguous Loss” as described by Boss (1999). Ambiguous Loss occurs when there are prolonged periods of parent-child separation, an experience that many of the TCKs in this study experience. Ambiguous Loss can also occur when a parent or loved one is physically present but psychologically unavailable. Ambiguous Loss puts up barriers that make it difficult to find resolution to grief. It can be said that the feeling of loss can result not only from the death of a family member or friend, but from a variety of other transitional experiences which may trigger a host of physical, emotional and behavioral responses on the part of the child (Feshback and Feshback, 2001).

### **International Schools Third Culture Kids Attend**

Hayden and Thompson (2000) estimated that there are over one thousand international schools located throughout the world in at least 120 countries. Most of the international schools are privately funded, with students from varied backgrounds that include: diplomats, military personnel, multinational corporation executives, religious missionaries, all of whom want their children to attend university back in their passport countries. It is often the case that children of local government and military officials will send their children to an international school anticipating future overseas postings. While there are plenty of international schools



that teach in their home country's language, most of the international schools cater to English speaking students (Borden, 2000).

One of the most unique characteristics of international schools is their multinational student population, with children from as many as forty or fifty other countries attending the same school. Students in these schools often find that their international experiences give them something in common with one another and create a true cross-cultural/multicultural experience (Hess & Linderman, 2002). The student population in these schools can be as small as 100 and as large as 3000 with relatively small class sizes (10-25 students per class). The majority of schools are separated into a primary school (kindergarten through grade 5), middle school (grade 6 through 8), and a high school (grade 9 through 12).

The models of instruction found in international schools vary but generally follow the educational models and practices found in the host country. Some international schools offer the American model of Advanced Placement (AP) courses in the high school while other schools offer the International Baccalaureate (IB), a European model. Regardless of the school's education model, international schools are renowned for their emphasis on academic rigor, exceptional university preparation and high graduation rates.

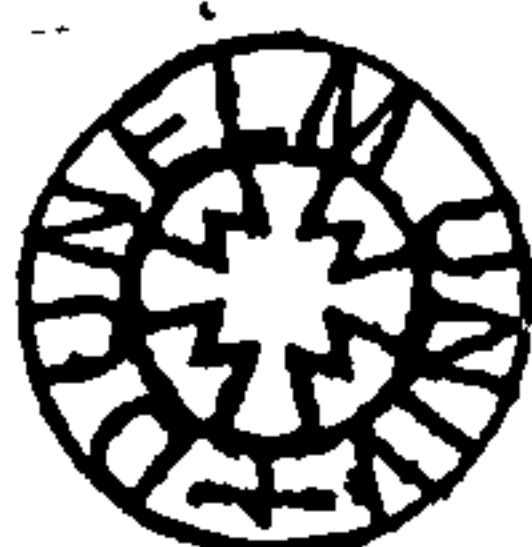
American international schools, like the one in this study, are co-educational and receive assistance from the U.S. Department of State's Office of Overseas Schools if they are part of the Regional Council for Overseas Schools (Pascoe, 1993). These schools often become the center stage for the American international community, offering extra-curricular activities and enrichment programs for both students and parents.

The most common feature that international schools share is transience. It is not atypical to find a student and staff turnover rate as high as thirty percent per year. This is a direct result of the frequent job transfers that companies order, which inevitably require families to relocate to another location. Often times, families are required to relocate after having been in a new location for just a few months. Typically however, a family will spend between 1 and 3 years at an international location before being required to move to another location. Given the transient nature of the international community, the good news during these stressful periods of moving is that many children will meet again in another international school.

Approximately 70 percent of the students in this study are American passport holders from varied ethnic backgrounds. The remaining 30 percent of students hold passports from one of the other 43 nationalities that represent the school. Most of the students come from families who are affiliated with a multinational corporation and have moved to this region for the purpose of business. A smaller minority of students in this study come from military families who are stationed in Singapore. A more thorough description of the sample population will be given in the chapters that follow.

### **Summary Discussion of Third Culture Kids**

The TCK literature, while still relatively new, is growing with each passing day as the numbers of TCKs increase around the world. Up to now, TCK identity development and outcome have been of most interest to researchers (Downie, 1976; Giardini, 1993; Gleason, 1973; Halliburton, 1996; Harper, 1986; Iwama, 1990; Jordan, 1981; Minoura, 1979; Salmon, 1987; Smith, 1991a). There have also been





studies conducted on the notion of nationality and on the experience of belonging (Delin, 1987; Downie, 1976; Fail, 1995; Giardini, 1993; Harper, 1986; Jordan, 1981; Salmon, 1987; Smith, 1996b; Werkman, 1978) in TCKs. The role of the Third Culture or “international microculture” as it is sometimes referred to as by academics (Downie, 1976; Fontaine, 1987; Giardini, 1993; Hager, 1979; Jordan, 1981; Salmon, 1987; Useem & Donoghue, 1963), and implications of gender (Iwama, 1990; Stelling, 1991; Tamura & Furnham, 1993) on the TCK experience have also received attention. TCK research also includes studies of academic achievement, sponsor influence, family background and family mobility, and reverse culture shock or repatriation shock (Gaw, 1994; Krajewski, 1969; Olson, 1985).

### **Chapter Summary**

The purpose of this chapter was to introduce and discuss the resilience and TCK literature relevant to this study. Various components of resilience were discussed including: stress and risk factors, protective factors and resources, and coping strategies. Particular attention was given to Grotberg’s Model of Resilience, as it was used to interpret the data gathered in this study. Information related to TCK characteristics and influences upon resilience were also discussed. It was determined that the most influential factors on TCKs’ levels of resilience included: culture, parents’ roles, peer interaction, identity development, and transition and mobility. The chapter concluded with a brief overview of international schools. Chapter 3 presents the methodology used for this research study.



### CHAPTER 3: RESEARCH METHODOLOGY

*“The place to begin in studying resilience in individuals is with what they themselves report about their own lives, especially about what has sustained them... their understanding of themselves and their capacities.”*

-Beardslee, 1989 p. 267,275

#### Introduction

The purpose of this study was to examine the influence of cross cultural experiences upon levels of resilience in children attending SAS, an American school located in Singapore. These children, commonly referred to as TCKs or Global Nomads, have spent a significant part of their developmental years living outside their parent's culture and their country of passport. It was this researcher's intent to give a *voice* to the TCKs who participated in the study, depict them as accurately as possible, and subsequently attempt to discover and acknowledge their realities. This research should be considered "...a creative process of establishing truth which is multi-faceted, reality-bound, interpretive, and real to the people who live by it" (Rothe, 1993, p.4).

To measure levels of resilience, an adapted version of the original Child's Perception of Resilience Checklist (CPRC-B) was administered to a sample of students attending SAS, an international school in Singapore. In addition to the administration of the CPRC-B, participants were also instructed to complete a Demographics Form. Using the Exhaustive CHAID statistical analysis, the researcher was able to measure levels of resilience among TCKs, exploring the significant and important relationships between various demographic variables and levels of resilience. The research questions that guided this study were:

1. What are the levels of resilience in TCKs, ages 7-15, attending an international school in Singapore as measured by the CPRC-B?
2. What are the relationships among levels of resilience and the background factors of TCKs, if any?
3. What are the levels of resilience and TCK background factors which can be used to predict adjustment?

The statistical methodology employed was the Exhaustive CHAID. This analytical procedure was deemed to be the most appropriate statistical analysis to use for this study, given its ability to detect interactions between variables through an exhaustive iterative process, which can then be incorporated into subsequent predictive models for use and testing in the future. It is also extremely useful in those instances where the criterion measure of the dependent variable is nominal, and must be evaluated at more than two levels. Throughout the remainder of this thesis, the Exhaustive CHAID-generated resultant models will be referred to as *decision tree models*.

Using the Exhaustive CHAID decision tree models, the researcher was able to explore the relationships between levels of resilience and various demographic variables among participants to determine interactions and significance. This method is a powerful tool for partitioning large data sets containing many nominal variables. A brief outline of the method is given here. For a more complete explanation, see Kass (1980). The algorithm involves examining all possible combinations of the categories of each predictor variable, determining which combination has the highest association with a dependent variable, and using the predictor with the highest association to split the data. In the first step, the algorithm



creates all of the possible contingency tables using allowable pairs of a predictor and its associated target. Allowable pairs are determined by the nature of the variable. For instance, an ordinal variable's categories may only combine in neighboring pairs. Using the p-value of the  $\chi^2$  statistic for each table, all of the contingency tables for that predictor are compared. Based on the p-values, pairs that are statistically insignificant are merged, until the table with the highest significance to the target variable is found. Once the best split of the categories has been determined, the algorithm checks for the predictor with the highest significance to the target categories. If the highest significance is found to be statistically significant, the data is split. It then repeats the process with all of the remaining predictors until no predictors are found to be significant, or until other breaking conditions (which the user can specify) are met.

This method was improved upon by Biggs, et. al., in 1991. Biggs found Kass's method for calculating significance favored predictors with fewer categories. This was due to Kass's calculation of the Bonferroni adjustment factor. In Biggs' approach, the Bonferroni adjustment factor was calculated differently, thus the methods for calculating the significance were adjusted to remove the advantage of predictors with fewer categories. This approach is called the Exhaustive CHAID in the Answer Tree© software.

Before the Exhaustive CHAID statistical analysis was conducted, scatter plots were run to check for nonlinear relationships between the continuous independent variables and the dependent variables. Scatter plots also provided information about how pairs of variables were related to one another and identified outliers in the data.



There were some obvious limitations to the sample selection. By using a convenient sample and the advice of the homeroom teachers, the researcher trusted that, for the most part, the participants fit the study's criteria. It is likely there was variation within the sample with respect to the levels of adversity experienced by each student and the extent to which students were resilient.

### **Participants**

Using the CPRC-B and a Demographics Form, the researcher attempted to measure levels of resilience among TCKs aged 7-15 attending SAS. A total of 792 students from grades 3 through 8 were invited to participate in the study. The researcher secured approval from the appropriate SAS administrators prior to beginning the study (Appendices A & B). Furthermore, in making certain to adhere to ethical guidelines when working with children, all students were provided with a Parent Consent Form (Appendix F) which introduced the researcher and the nature of the study. These forms were taken home for their respective parents/guardians to read, sign, and then return if consent was granted. Participants who were granted parent/guardian consent were then required to complete a Participant's Assent Form (Appendix G) prior to the administration of the CPRC-B and Demographics Form. It was predicted that an equal number of males and females would participate in the study, with an approximate sample size of 600 participants. The final number of students who were given parental permission to participate and who themselves agreed to take part in the study was 626.

Most of the students at SAS are U.S. passport holders, and while Americans comprised a majority of the sample in this study, there were over 20 other passport

countries represented. The only exception for participant inclusion in this study was a small population (n=22) of ESL students. For the purposes of this study, and to control for extraneous variables as much as possible, data collected from ESL students were omitted from the findings. It should be noted that the rest of the student population at the school speaks, writes, and understands English at or above appropriate grade level expectations, as measured by the ITBS achievement test. The ITBS achievement test is a standardized assessment test that originates in the U.S. and is given to students on an annual basis for the purposes of measuring student achievement levels.

### **Quantitative Instruments**

The original version of the Child's Perception of Resilience Checklist (referred to in this study as the CPRC-A) (Appendix C) was developed by a highly esteemed Advisory Committee comprising of representatives from several international organizations for the International Resilience Project (1995). The CPRC-A inventory was critiqued and modified through consultation with members of the Advisory Committee and through field testing, under supervision and training, by graduate students at the University of Maryland. Various standardized tests were employed in North America to validate the selection of resilience factors that were assumed by the Advisory Committee to measure social skills in the interpersonal area, locus of control as an inner strength, and the parental contribution to resilience from external factors. These tests included Social Skills Rating System (Gresham & Elliot, 1990), Nowiski-Strickland Locus of Control Test (1973), and Parental Bonding Inventory (PBI) (Parker, Tupling & Brown, 1979).



The purpose of the CRPC-A is to measure levels of resilience in adolescents living in various cultural settings. The CPRC-A was developed for children between the ages of 7 and 14 years, a critical period of maturation in which secondary socialization often takes place. Secondary socialization is a period during which individuals learn appropriate behavior as members of a smaller group within a larger society (Holland, D. 1970). The CPRC-A consists of a 9-item self-report inventory designed to identify levels of resilience in children. Grotberg's Model of Resilience was used as a template when designing the CRPC-A and therefore includes statements that attempt to measure a child's perception of their "I Have", "I Am" and "I Can" levels of resilience. Statements 1, 2, and 3 on the CPRC addressed the resilience characteristic "I Have". Statements 5, 6, and 9 targeted the "I Am" resilience characteristic. Finally, statements 4, 7, and 8 measured the resilience characteristic "I Can".

The CPRC-A was designed using a 4-item Likert Scale: Agree, Somewhat Agree, Somewhat Disagree, Disagree. When the researcher reviewed the responses to the CPRC-A from the pilot study however, it was evident that many of the students struggled to choose from one of the four options, and instead chose to write in their own answers on the inventory. Their "penciled in answers" either reflected an intermediate position such as, "sometimes" or "occasionally", or a neutral position such as, "I don't know" or "irrelevant". The researcher concluded that while the 4-item Likert Scale may have been appropriate for the original purposes of the CRPC-A when used in the International Resilience Project, it was inadequate for the participants in this study. The researcher felt that the content of the questions were still applicable, but that the scale needed to be adjusted to offer more options



for students to choose from when attempting to answer the questions. After discussing this issue with students from the pilot study and learning more about the range of answers students had, the researcher produced a revised version of the CPRC-A that included an expanded 5-item Likert scale. The researcher called this revised version the CPRC-B. The researcher felt that the 5-item Likert scale was a more adequate measurement for the sample of TCKs involved. It allowed them to choose from the following options: Agree, Somewhat Agree, Neutral, Somewhat Disagree, Disagree. The checklist statements themselves remained the same in the CPRC-B as they were in the CPRC-A.

Internal consistency is important for the CPRC-B to assure that items within the inventory assess the same constructs. Cronbach's alpha measures how well a set of items (or variables) measures a single unidimensional latent construct. In this study, the latent construct was the measure of resilience. As the average inter-item correlation increased, the Cronbach's alpha increased as well. It was found that the Cronbach's alpha score for the CPRC-B was fairly high (0.7), suggesting that the questions from CPRC-B were highly correlated to one another and indeed doing a good job of measuring resilience. This was an important finding as the resilience inventory (CPRC-B) had been modified from its original state (CPRC-A) to make it more suitable for the sample population studied.

In addition to administration of the CPRC-B, a Demographics Form was issued to participants. These forms collected information that would later be used to measure relationships and significance of replies to the CPRC-B and individual characteristics of TCKs. Questions on the Demographics Form gathered information about respondent's age, gender, nationality, total number of

international schools attended, number of siblings, number of years overseas, frequency of one or both parents traveling because of work obligations, and marital status of their parents. An analysis of various Demographics variables with respect to CPRC-B data was found to yield valuable information related to the resilience and influential factors.

### **The International Resilience Project**

A brief word about the International Resilience Project is in order given that this study adopted its resilience inventory. In 1995, Dr. Grotberg led a massive international project that involved 30 countries with children living in disadvantaged circumstances. The very general aim of this study was to improve opportunities for young children living in disadvantaged circumstances and to understand more about how adverse conditions and experiences strengthened levels of resilience in some children while weakening levels of resilience in others. Grotberg hoped that information gleaned from this study would empower parents and communities, improve self-esteem in children and families, and enable families and communities to make their own decisions. The project aimed to convey the message that disadvantages could be looked at as challenges to be solved or compensated for rather than problems. Grotberg's study searched for strengths that exist within the individuals and their environments. Her hope was to teach participants in the study how to build upon their inner strengths to enhance their lives. The Advisory Committee served a very important role in the project, offering suggestions and criticisms to methodology and instrumentation employed during the project. Organizations that made up the Advisory Committee included the Civitan



International Resource Center, the United Nations Educational Scientific and Cultural Organization (UNESCO), Pan American Health Organization (PAHO), World Health Organization (WHO), International Children's Center (ICC), International Catholic Child Bureau (ICCB), and the Bernard van Leer Foundation. Members of the Advisory Committee were selected because of their professional status and work, and because of their contribution to the resilience literature. They held positions such as directors of research at their respective institutions, professors, medical doctors, practicing psychologists, and directors of training programs.

### **Quantitative Procedure**

Once the number of students participating in the study was determined, the researcher collaborated again with the students' homeroom teachers to solicit their help in distributing the CPRC-B and Demographics Forms to students. In an effort to establish consistency among the 35 homeroom teachers who were helping to facilitate the inventories, the researcher produced a set of teacher instructions (Appendix H) that was to be used during the administration of the research instruments. Ideally, the researcher would have liked to personally administer the tests, however time and schedule restrictions made this impossible. The teacher's instructions provided students with information about the CPRC-B and Demographics Form. Homeroom teachers were present to provide additional support and clarification to the students on an individual basis. Students placed completed CPRC-B and Demographics Forms in an envelope provided to the teacher, which was later collected by the researcher. This process took an average



of twenty-five minutes to complete, with the younger participants taking a little more time to answer the questions. Students who were not participating in the study were asked to work independently while the administration of the CPRC-B and Demographics Form took place.

Prior to the administration of the inventories, the researcher made sure that the time required to complete the inventories would not adversely impact students' academic schedules. At the conclusion of the study, participants and teachers were thanked for their cooperation, and students were reminded that their individual results were anonymous because no identifiable information was asked. Students were invited to visit with the researcher about their individual situation should they feel the need. Data collected from participants were secured in a locked cabinet in the researcher's classroom. Once the researcher removed ESL student data and returned inventories with incomplete information, the researcher was left with a total of 626 completed entries to use in Exhaustive CHAID analysis.

### Chapter Summary

Chapter 3 discussed the study's research methodology. Participants in this study were TCKs attending SAS located in Singapore. Levels of resilience were measured using the CPRC-B, a revised version of the original inventory (CPRC-A). Demographics information was also collected from each participant. Demographics data was used with student responses to the CPRC-B in an Exhaustive CHAID statistical analysis. The Exhaustive CHAID statistical analysis allowed the researcher to investigate interactions between variables and levels of significance.

## CHAPTER 4-RESULTS

### Introduction

The purpose of this study was to examine the influence of cross cultural experiences upon levels of resilience in children attending an international school in Southeast Asia. With high levels of mobility and transcultural experiences, the researcher was interested in determining what factors might account for levels of resilience in these students. To date, there has not been research in the area of resilience carried out among TCKs attending international schools.

All school students in grades 3 through 8 were invited to take part in the research study. The researcher sought Administrative approval from SAS prior to beginning the study. Parent Consent Forms were then issued to participants with a description and overview of the study. Participants were asked to bring the Parent Consent Forms home and return them over the course of the following week. A total of 702 students were invited to take part in the study. Of these students, 648 students (92.3%) were given parental consent to participate in the study. The remaining 52 students (7.7%) were not eligible to participate in the study. About half of these students (n=25, 48.1%) were not given parent consent while the remaining (n=27, 51.9%) failed to bring their consent forms back to school before the deadline.

The administration of the CPRC-B and Demographics Form took place in students' respective homerooms. Regarding the participants (n =648), 22 (3.4%) indicated they were ESL students. To control for language interpretation difficulties related to the CRPC-B, these students were removed from the study. Participants in the study answered all questions on CRPC-B inventory and the Demographics Form,

making the final number of participants included in the analysis n=626 (89.2% of the original 702 students invited to participate). The data was entered into SPSS for statistical analysis. The data was tested and revealed scores that were normally distributed.

The remainder of Chapter 4 will discuss the findings from the quantitative data in more detail.

**The Findings and Quantitative Statistical Data Analysis**

**Raw Data**

SPSSPc™ was used to aggregate and report on the CRPC-B and Demographics data. The Demographics data provided by participants was also coded (Appendix I). The complete definitions and coded names of these variables are given in Appendix J. The original aggregated data set utilized to answer the research questions consisted of 626 responses for 9 individual item responses. The descriptive statistics associated with the raw data are presented in Figures 2-28 below.

Figure 2: Statistics for “I Have” Statement 1

Statistics		
'I Have' Statement 1		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5



Figure 3: Ungrouped Frequency Distribution for “I Have” Statement 1

		'I Have' Statement 1			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Agree	502	80.2	80.2	80.2
	2 Somewhat Agree	107	17.1	17.1	97.3
	3 Neutral	16	2.6	2.6	99.8
	5 Disagree	1	.2	.2	100.0
	Total	626	100.0	100.0	

Figure 4: Graphic Representation of “I Have” Statement 1

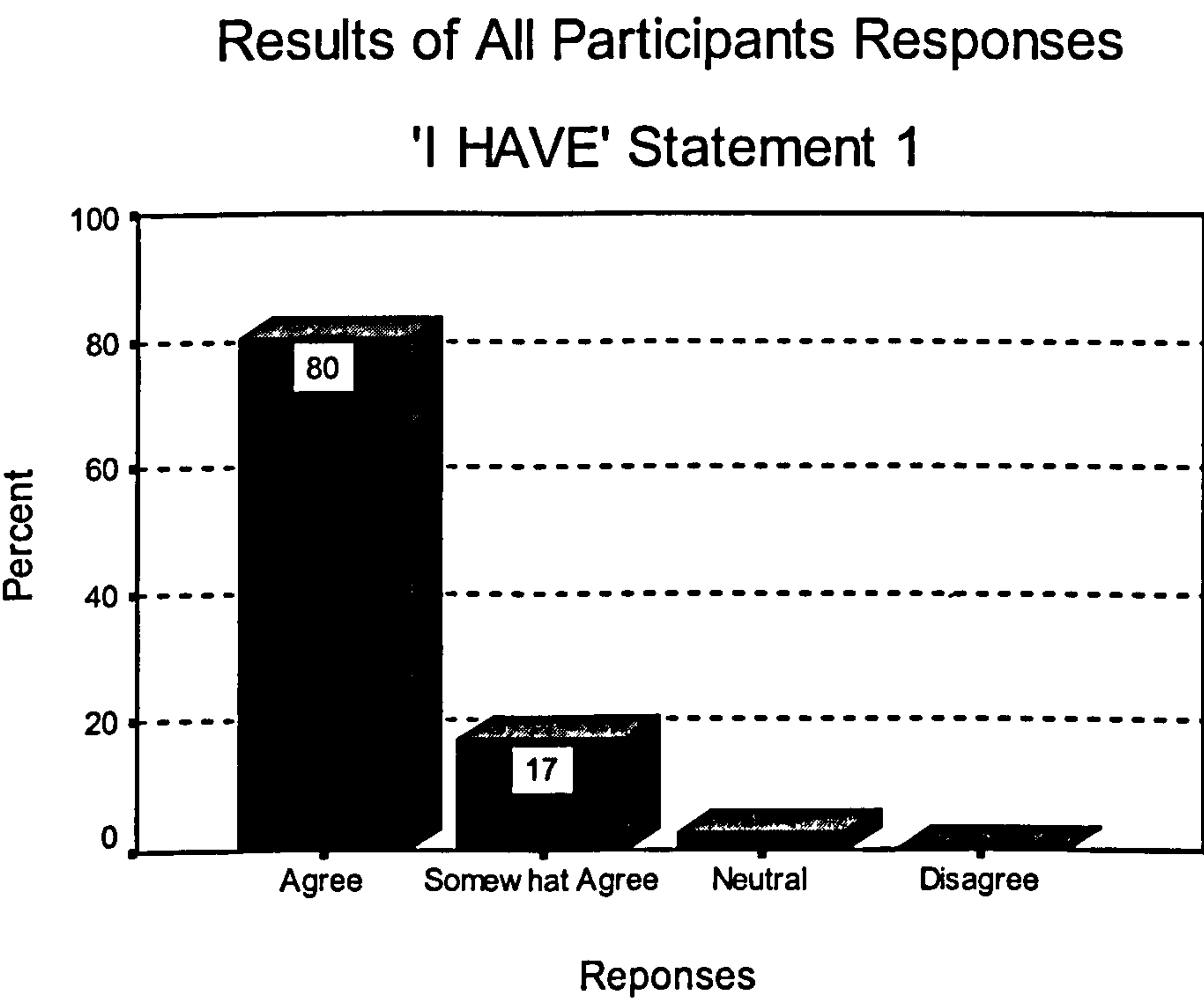


Figure 5: Statistics for “I Have” Statement 2

Statistics		
'I Have' Statement 2		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5

Figure 6: Ungrouped Frequency Distribution for “I Have” Statement 2

'I Have' Statement 2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Agree	376	60.1	60.1	60.1
	2 Somewhat Agree	65	10.4	10.4	70.4
	3 Neutral	76	12.1	12.1	82.6
	4 Somewhat Disagree	72	11.5	11.5	94.1
	5 Disagree	37	5.9	5.9	100.0
	Total	626	100.0	100.0	

Figure 7: Graphic Representation of “I Have” Statement 2

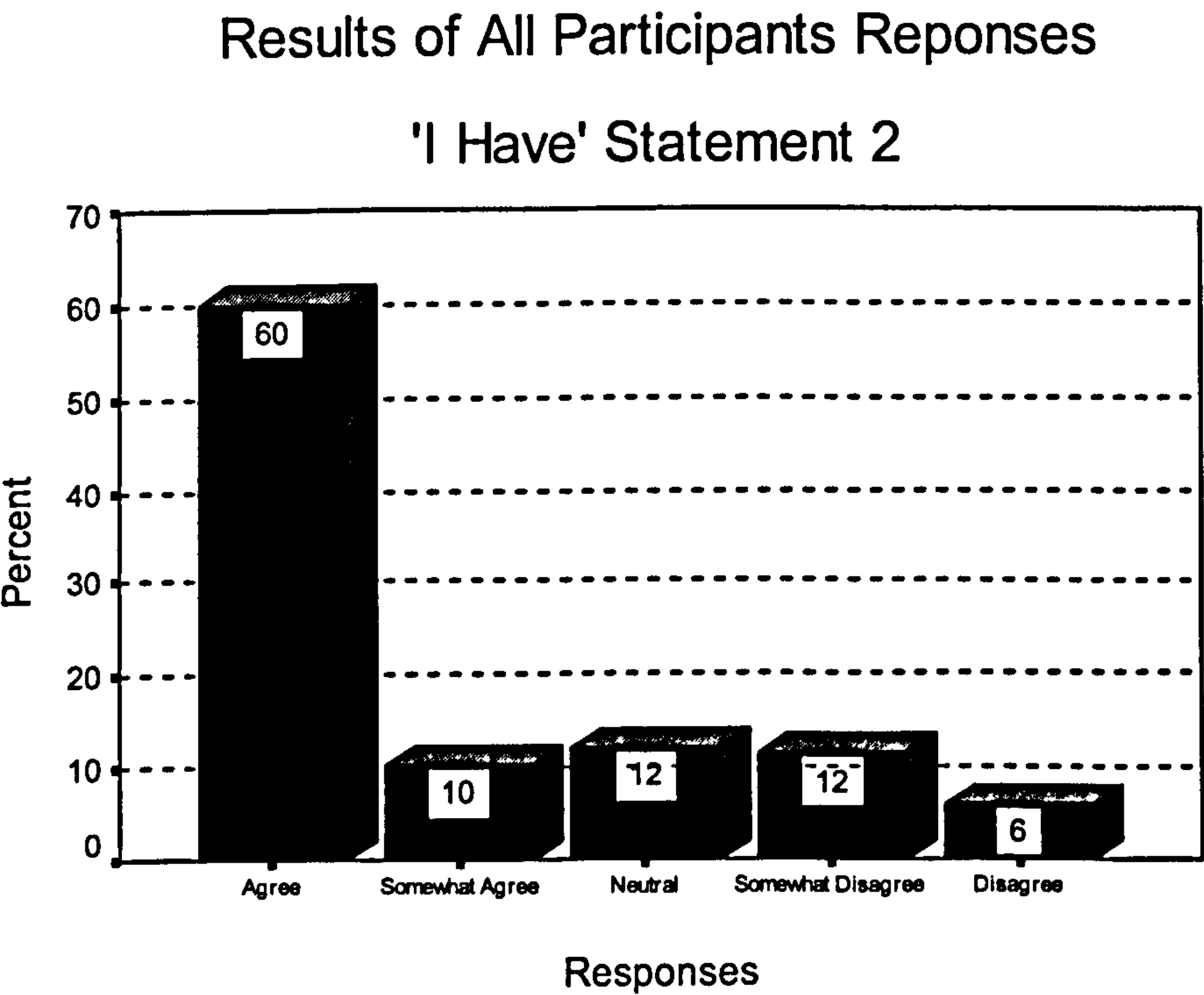


Figure 8: Statistics for “I Have” Statement 3

Statistics		
'I Have' Statement 3		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5

Figure 9: Ungrouped Frequency Distribution for “I Have” Statement 3

'I Have' Statement 3				
		Frequency	Percent	Cumulative Percent
Valid	1 Agree	505	80.7	80.7
	2 Somewhat Agree	87	13.9	94.6
	3 Neutral	20	3.2	97.8
	4 Somewhat Disagree	6	1.0	98.7
	5 Disagree	8	1.3	100.0
	Total	626	100.0	

Figure 10: Graphic Representation of “I Have” Statement 3

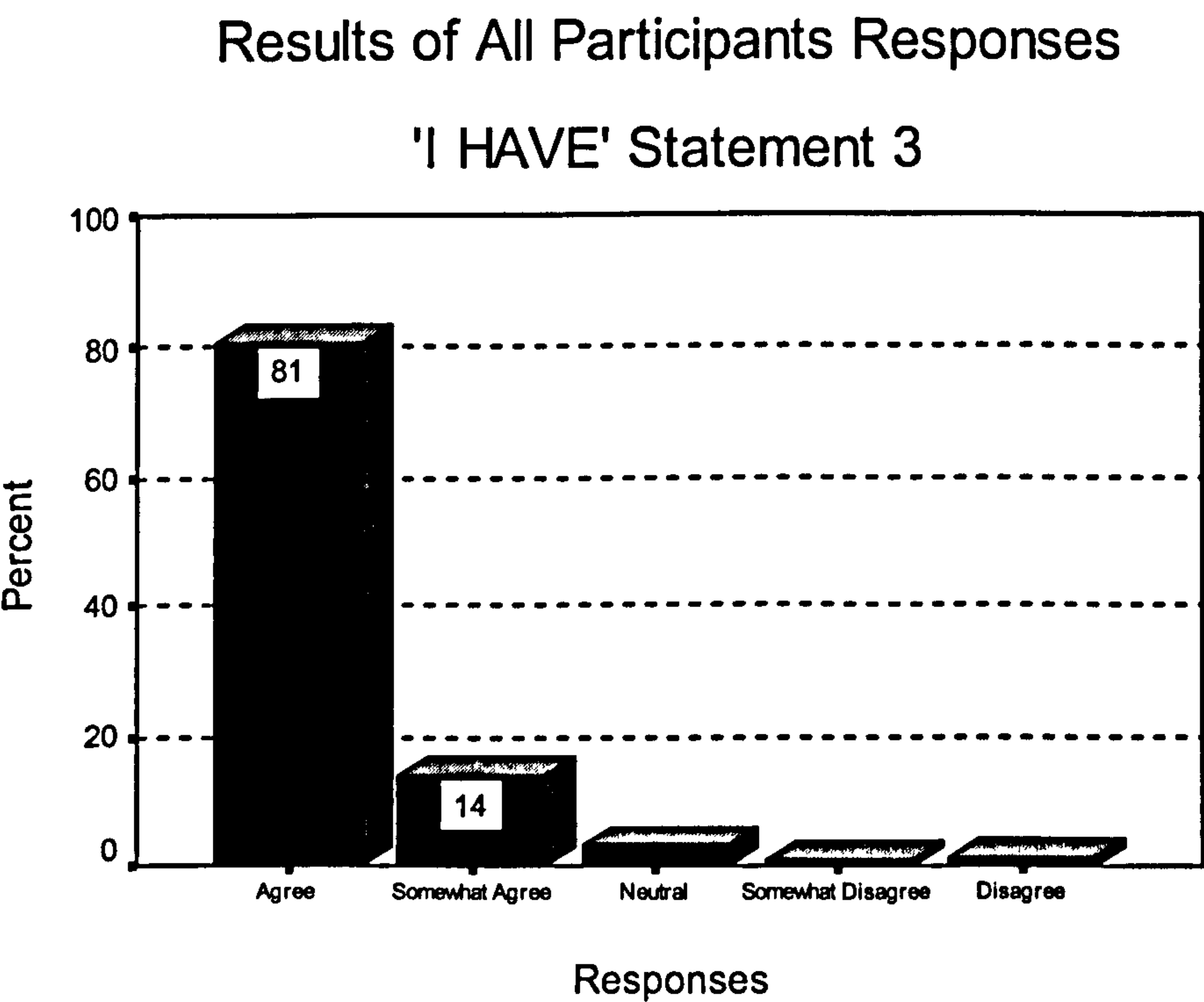


Figure 11: Statistics for “I Can” Statement 1

Statistics		
'I Can' Statement 1		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5



Figure 12: Ungrouped Frequency Distribution for “I Can” Statement 1

'I Can' Statement 1				
		Frequency	Percent	Cumulative Percent
Valid	1 Agree	354	56.5	56.5
	2 Somewhat Agree	47	7.5	64.1
	3 Neutral	66	10.5	74.6
	4 Somewhat Disagree	89	14.2	88.8
	5 Disagree	70	11.2	100.0
	Total	626	100.0	

Figure 13: Graphic Representation of “I Can” Statement 1

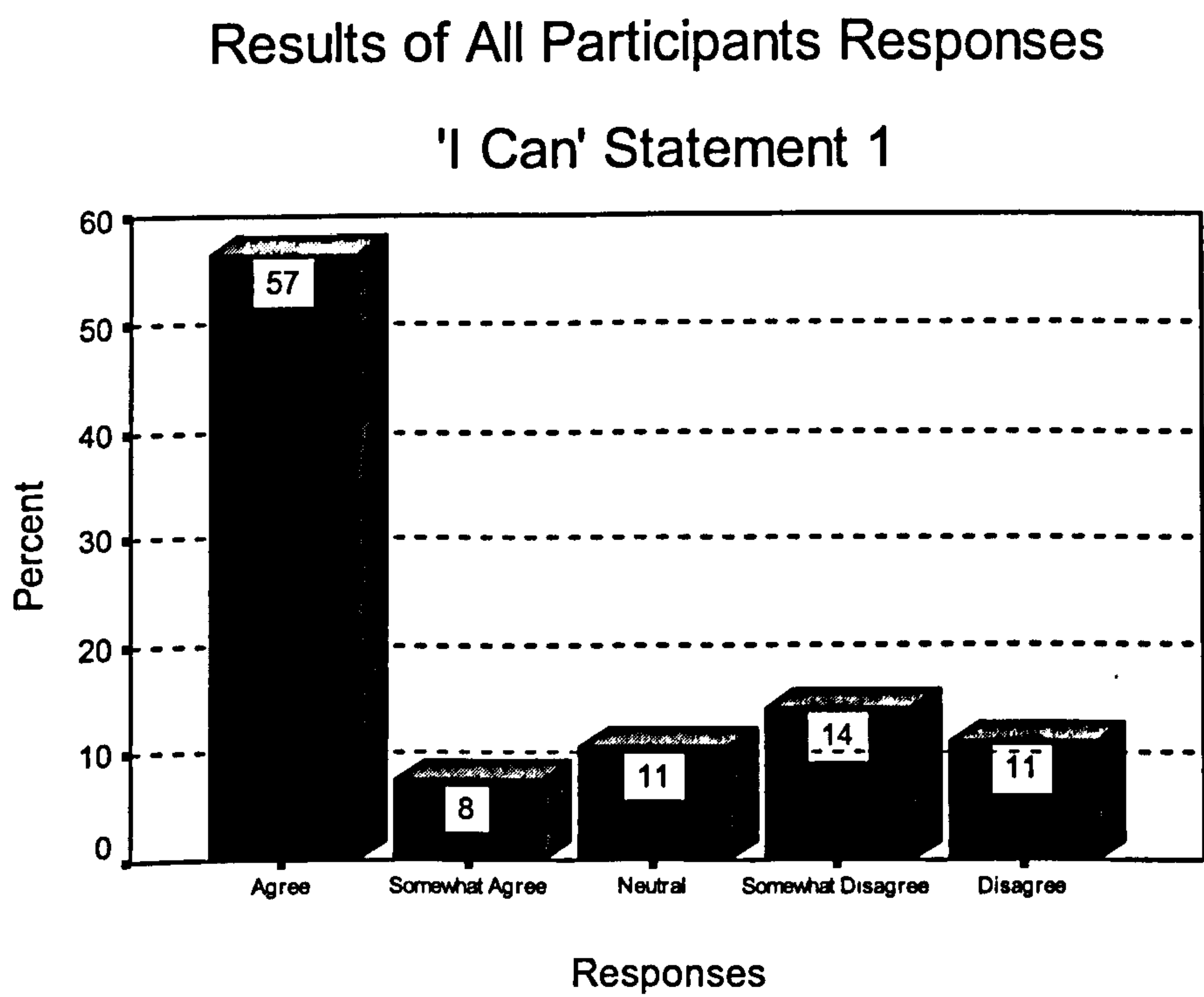


Figure 14: Statistics for “I Can” Statement 2

Statistics		
'I Can' Statement 2		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5

Figure 15: Ungrouped Frequency Distribution for “I Can” Statement 2

'I Can' Statement 2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Agree	435	69.5	69.5	69.5
	2 Somewhat Agree	90	14.4	14.4	83.9
	3 Neutral	48	7.7	7.7	91.5
	4 Somewhat Disagree	30	4.8	4.8	96.3
	5 Disagree	23	3.7	3.7	100.0
Total		626	100.0	100.0	

Figure 16: Graphic Representation of “I Can” Statement 2

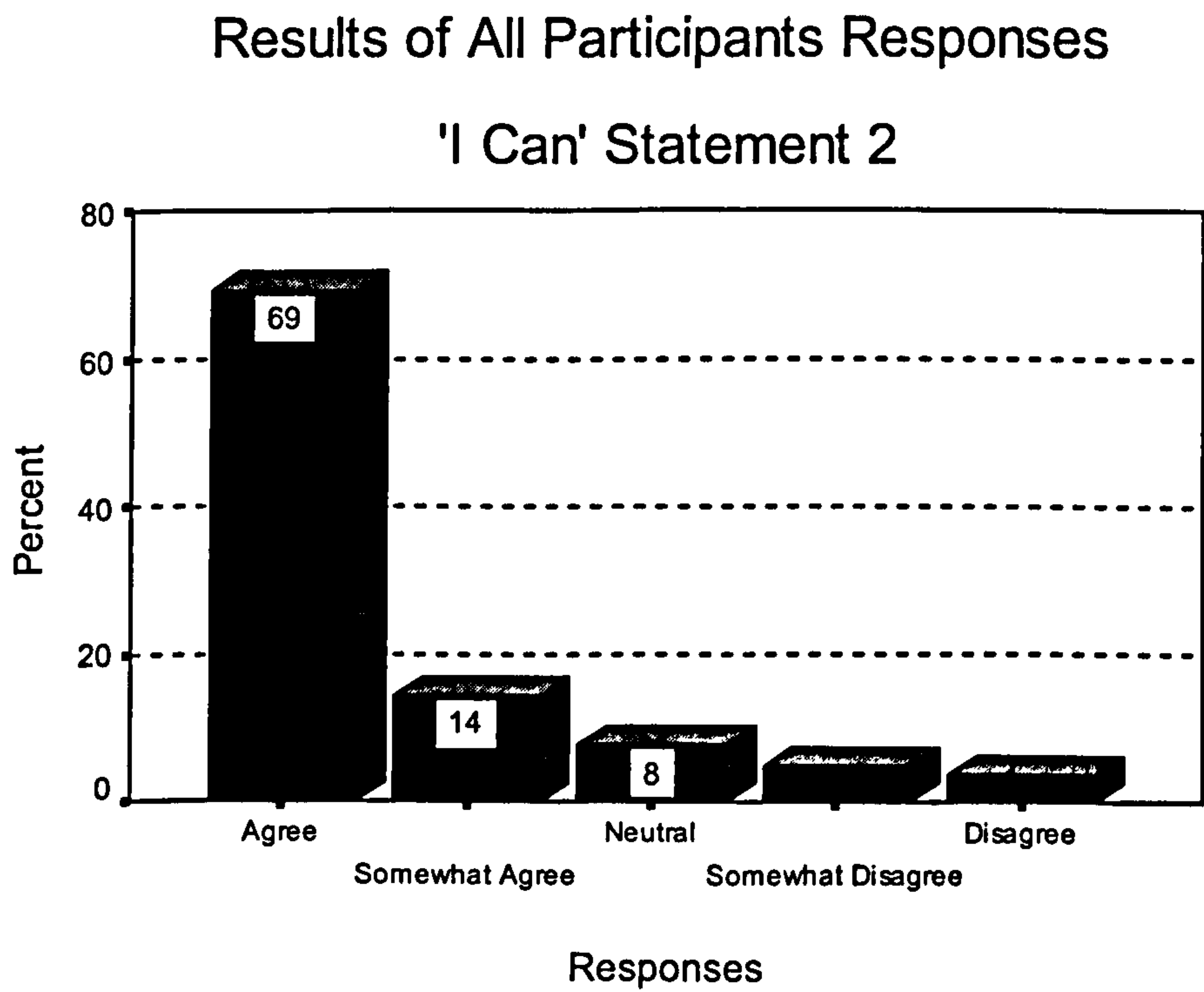


Figure 17: Statistics for “I Can” Statement 3

Statistics		
'I Can' Statement 3		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5

Figure 18: Ungrouped Frequency Distribution for “I Can” Statement 3

'I Can' Statement 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Agree	451	72.0	72.0	72.0
	2 Somewhat Agree	71	11.3	11.3	83.4
	3 Neutral	66	10.5	10.5	93.9
	4 Somewhat Disagree	23	3.7	3.7	97.6
	5 Disagree	15	2.4	2.4	100.0
	Total	626	100.0	100.0	

Figure 19: Graphic Representation of “I Can” Statement 3

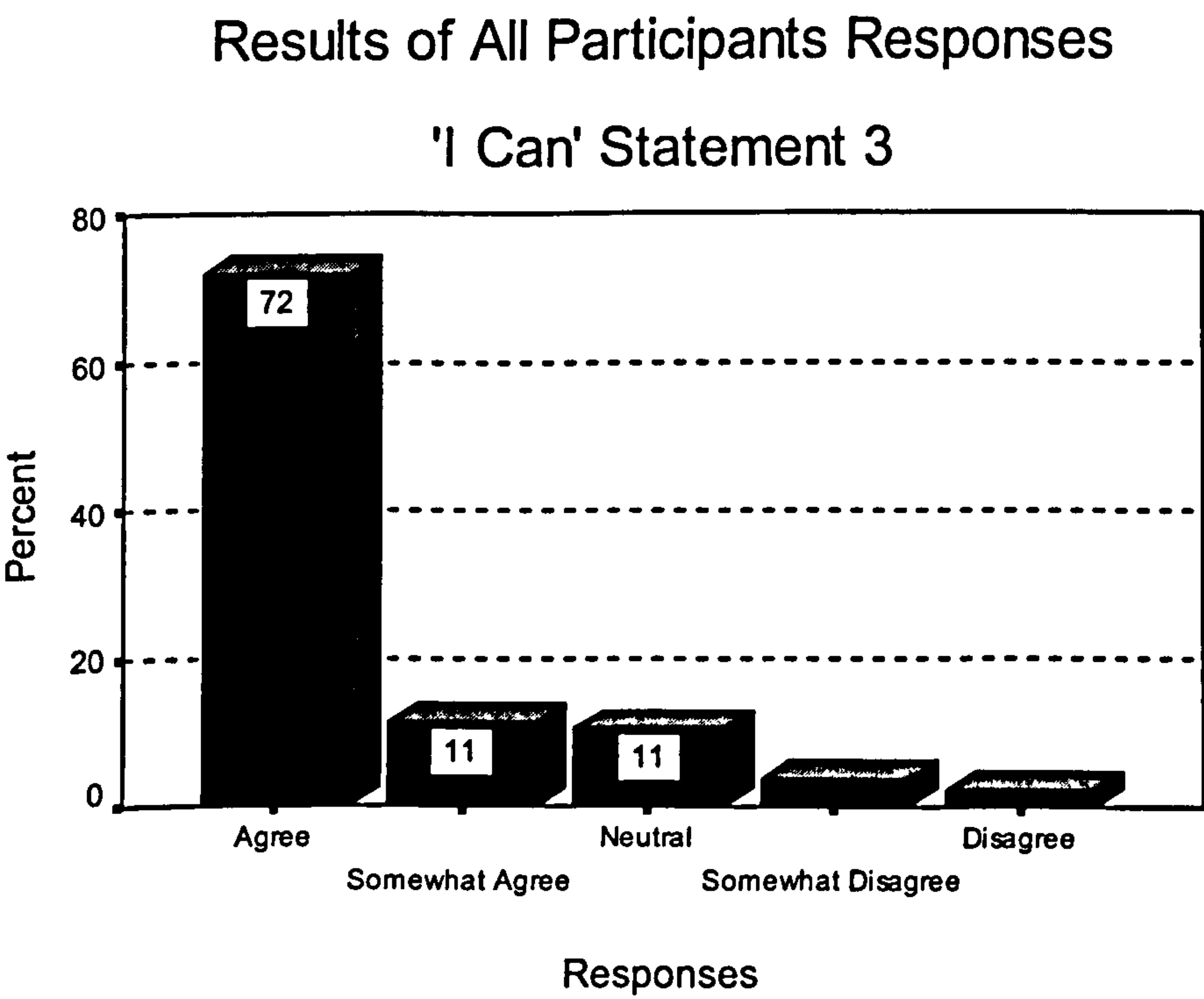


Figure 20: Statistics for “I Am” Statement 1

Statistics		
'I Am' Statement 1		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5



Figure 21: Ungrouped Frequency Distribution for “I Am” Statement 1

'I Am' Statement 1				
		Frequency	Percent	Cumulative Percent
Valid	1 Agree	308	49.2	49.2
	2 Somewhat Agree	82	13.1	62.3
	3 Neutral	65	10.4	72.7
	4 Somewhat Disagree	64	10.2	82.9
	5 Disagree	107	17.1	100.0
Total		626	100.0	100.0

Figure 22: Graphic Representation of “I Am” Statement 1

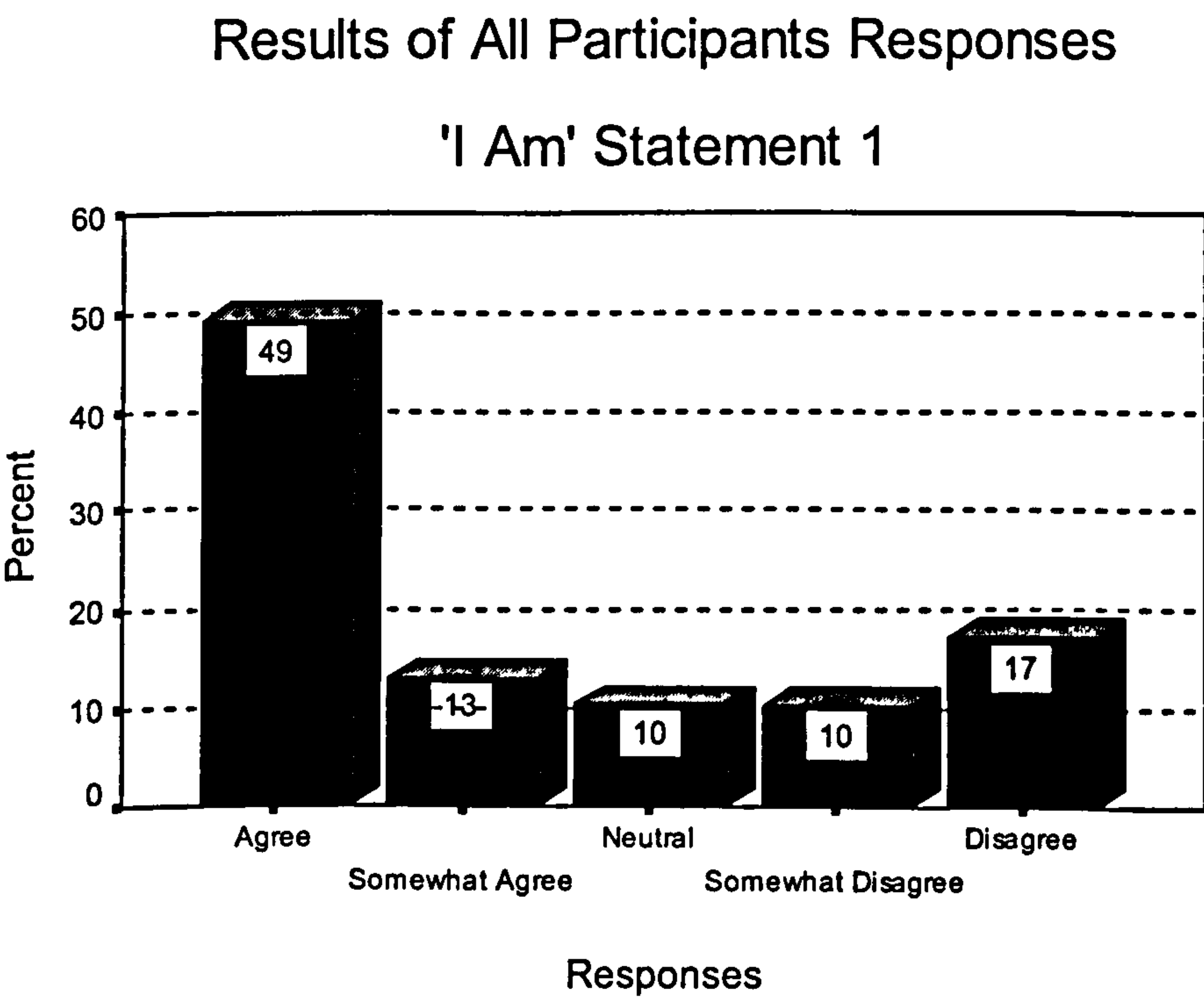


Figure 23: Statistics for “I Am” Statement 2

Statistics		
'I Am' Statement 2		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5

Figure 24: Ungrouped Frequency Distribution for “I Am” Statement 2

'I Am' Statement 2				
		Frequency	Percent	Cumulative Percent
Valid	1 Agree	411	65.7	65.7
	2 Somewhat Agree	82	13.1	78.8
	3 Neutral	73	11.7	90.4
	4 Somewhat Disagree	30	4.8	95.2
	5 Disagree	30	4.8	100.0
	Total	626	100.0	

Figure 25: Graphic Representation of “I Am” Statement 2

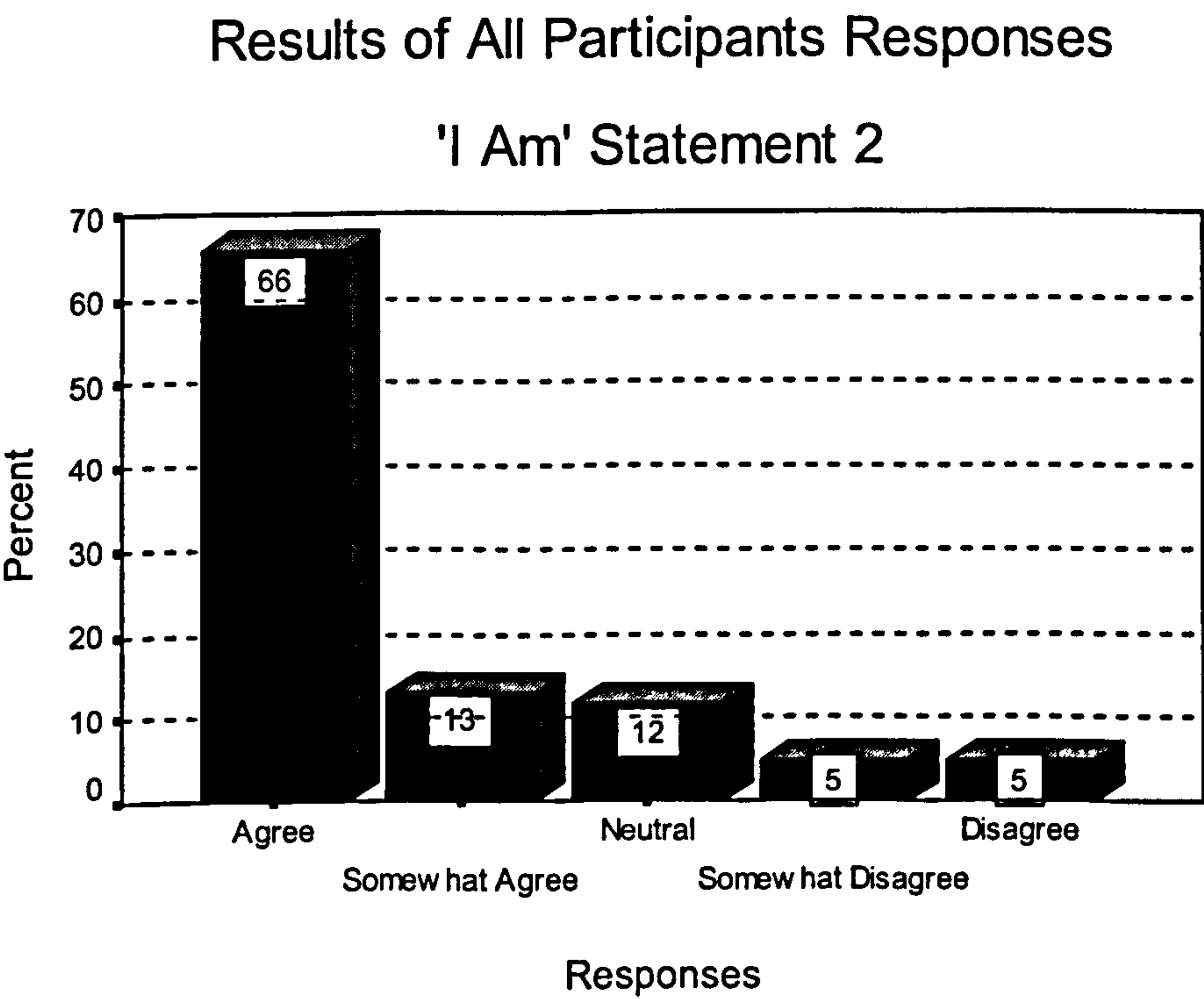


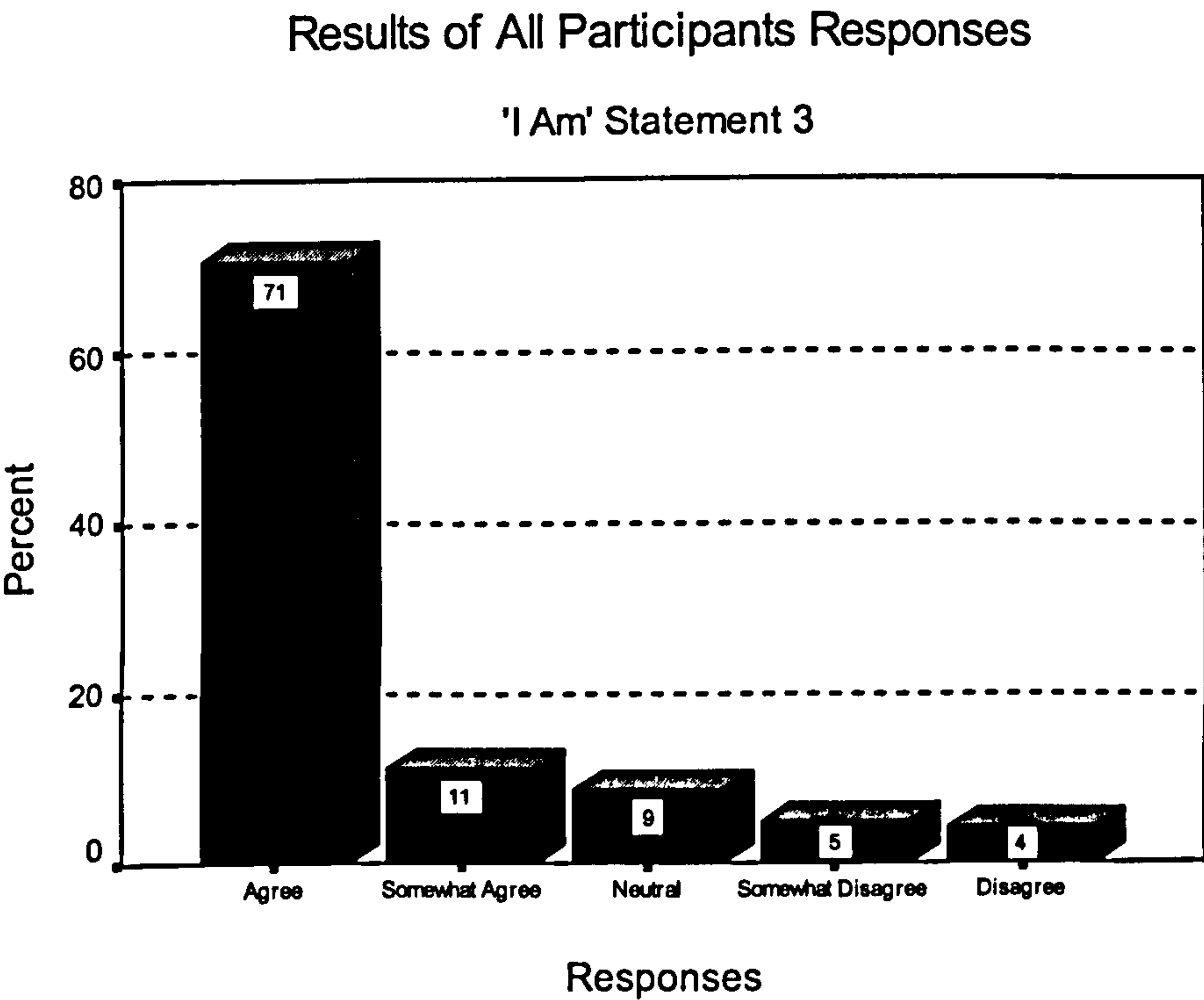
Figure 26: Statistics for “I Am” Statement 3

Statistics		
'I Am' Statement 3		
N	Valid	626
	Missing	0
Mode		1
Minimum		1
Maximum		5

Figure 27: Ungrouped Frequency Distribution for “I Am” Statement 3

'I Am' Statement 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Agree	443	70.8	70.8	70.8
	2 Somewhat Agree	70	11.2	11.2	81.9
	3 Neutral	55	8.8	8.8	90.7
	4 Somewhat Disagree	31	5.0	5.0	95.7
	5 Disagree	27	4.3	4.3	100.0
	Total	626	100.0	100.0	

Figure 28: Graphic Representation of “I Am” Statement 3



**Collapsed Data: 3-Levels of Criterion Order**

The development of a potential predictive model began by examining the possible predictor and dependent variables. In order to conduct an analysis of resilience at 3-levels, it was necessary to collapse the raw data (See Appendix K & L for the descriptive statistics of the raw and collapsed data). Using Grotberg’s Theory of Resilience, conditions for levels of resilience were executed which



ultimately allowed the data to be reduced from the original 5 categories down to 3: Not Resilient, Resilient, and Highly Resilient. The CPRC-B is a 9-item inventory which is made up of an equal number of statements reflecting “I Have”, “I Am”, and “I Can” factors of resilience. It is important to note that the collapsing of the data was not done arbitrarily. Using the normal distribution of the data, the linear nature of the variables was retained by utilizing a frequency distribution for each variable to generate subgroups.

The resilience scale was modified to allow for appropriate statistical analysis of levels of resilience. Those participants meeting the criteria of ‘Resilient’ reported some degree of resilience in all 3 of the “I Have” statements, as well as all 3 of either the “I Can” or “I Am” statements on the CPRC-B. Those participants meeting the criteria for ‘Highly Resilient’ reported some degree of resilience to all of the “I Have”, “I Am”, and “I Can” statements on the CPRC-B. Participants who did not report resilience on at least 1 of the “I Have” statements were subsequently categorized as ‘Not Resilient’. Additionally, participants who reported some degree of resilience to all the “I Have” statements, but failed to report some degree of resilience to all 3 of either the “I Can” or “I Am” statements were also categorized as ‘Not Resilient’. A series of IF-THEN statements helped in categorizing this data into their respective categories. The end result was a set of nominal data that aggregated the assessed levels of resilience into 3 levels: ‘Not Resilient’, ‘Resilient’, and ‘Highly Resilient’. An  $\alpha$  level of 0.10 was used for all of the analysis for the modified resilience scales.

The Independent (Predictor) variables extracted from the Demographics Form were also aggregated into nominal variables and recoded (Appendix M).

Some variables, such as Nationality, Number of Schools, Number of Siblings, Number of Countries, and Number of Year Overseas were also recoded in order to provide a more manageable number of categories. For each of these variables, an analysis of the frequency distribution associated with the original raw data set led to determining the most desired breakdown for the resultant levels employed in the analysis of the model. Once again, it is important to note that the linear nature of the data was not eliminated by the generation of subgroups.

Once the categories of the predictors and the target variables were established, a logical step-by-step analysis of levels of resilience in the sample was executed in order to answer the research questions posed by this study.

### **Quantitative Results**

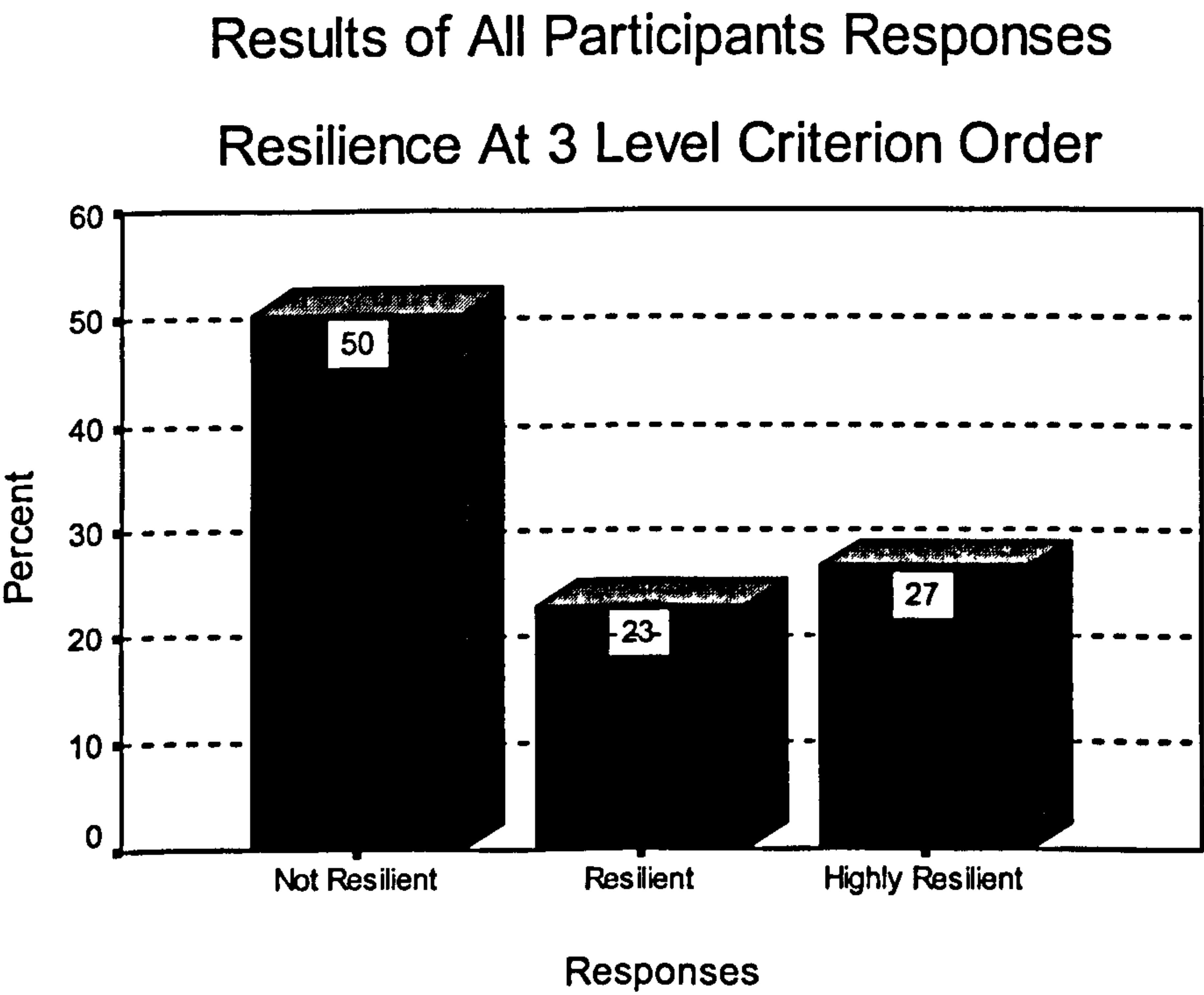
#### **3-Levels of Criterion Order:**

The descriptive statistics from the collapsed data into 3-levels revealed that from the total sample ( $n = 626$ ), 167 (26.7%) students were evaluated as Highly Resilient, 144 (23%) students were evaluated as Resilient, and 315 (50.3%) students were evaluated as Not Resilient. It is interesting to note that this data shows approximately half of the participants (49.7%) demonstrating some degree of resilience, while the other half of the participants (50.3%) did not demonstrate resilience. Figures 29-30 details the descriptive statistics for the three categories: Resilient, Highly Resilient, and Not Resilient.

Figure 29: Descriptive Statistics for Resilience at 3-Levels

Resiliency At 3 Levels				
	Frequency	Percent	Valid Percent	Cumulative Percent
Not Resilient	315	50.3	50.3	50.3
Resilient	144	23.0	23.0	73.3
Highly Resilient	167	26.7	26.7	100.0
Total	626	100.0	100.0	

Figure 30: Graphic Representation of Resilience at 3-Levels



The most appropriate methodology to use to analyze this set of data is the Exhaustive CHAID approach. Exhaustive CHAID is able to effectively analyze the 3 levels of the collapsed nominal categorical data and identify any significant and important variables that would identify associative variables as related to resilience in the sample group. For this analysis, an  $\alpha$  level to enter a variable of 0.10 was employed in order to obtain a lower  $\beta$ , with a limiting number of 8 levels permitted in the generation of the subsequent decision tree. The splitting of nodes on the tree

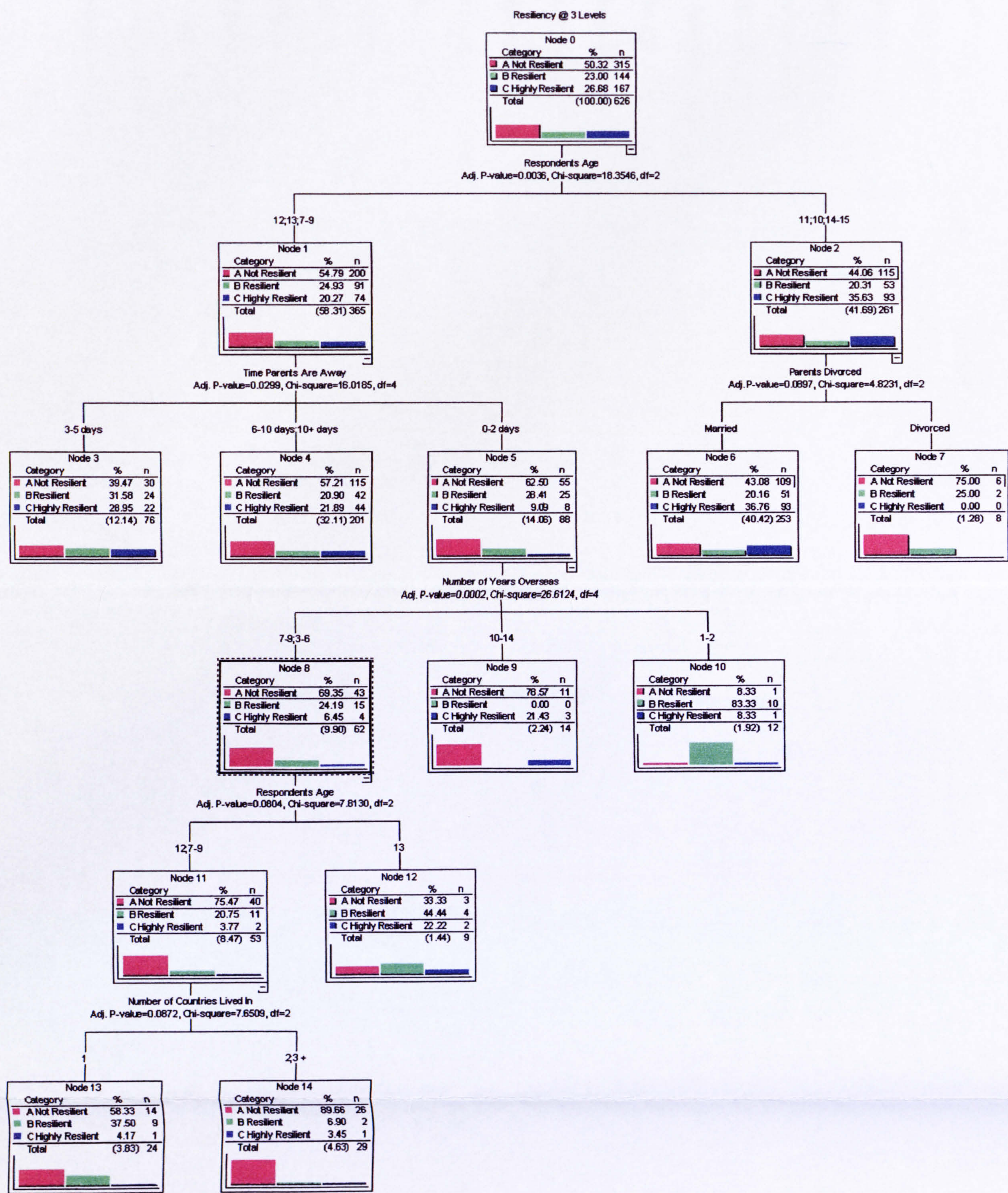


ceased after 8 levels of child nodes had been developed because any further distinctions were not considered significant or important (Biggs, et. al., in 1991). The minimum number of observations required to create a 'Child' node was 5, and the Bonferroni-Dunn adjustment was employed determining whether to split previously entered variables. Bonferroni-Dunn is a post-hoc analysis procedure that provides protection against a Type I error being made beyond the 0.10  $\alpha$  level used in this analysis. The researcher used Bonferroni-Dunn adjustment to protect against an inflation of the  $\alpha$  level due to repetitive testing of the same data.

The decision tree model output for the 3-level criterion order of resilience is shown in Figure 31 on the following page:



Figure 31: Decision Tree Model Output for Resilience at 3-Levels





From the decision tree model output, it can be seen that the first most significant and important variable associated with Resilience at 3-levels is Respondent's Age. Respondent's Age is separated into two categories that has grouped students aged 7-9, 12, & 13 in one group and students aged 10, 11, 14, & 15 in another group. It is important to note that there is no statistically significant association between age and either age group by itself, however, when collapsing the age groups into sub categories, Respondent's Age becomes the most significant and important factor in explaining resilience at 3-levels.

With age broken down into two equivalent categories (Category No.1= Ages 7-9, 12 & 13; Category No.2= Ages 10, 11, 14 & 15), statistical results yielded a  $\chi^2$  value of 18.35 with 2 degrees of freedom, an adjusted p-value of .0036 which corresponded to a Cramer's V of .171. Figure 30 details the statistical results of the two age groups and how they correspond to levels of resilience. These results show that due to chance and chance alone, the Respondent's Age Category No.1= Ages 7-9, 12 & 13 has a much lower observed percentage of highly resilient students than the Respondent's Age Category No.2= Ages 10, 11, 14 & 15. Within the same age group of students, the statistics for none resilient students shows a higher observed percentage of respondent's than in the other Respondent's Age Category No.2= Ages 10, 11, 14, 15, again due to chance and chance alone. Statistical results for Respondent's Age are illustrated in Figures 32-35.



Figure 32: Crosstabulation Results For Levels of Resilience and Respondent's Age

Resilience \* Respondent's Age Crosstabulation

			Respondent's Age		Total
			7-9, 12, 13	10, 11, 14, 15	
Resilience	Highly Resilient	Count	74	93	167
		Expected Count	97.4	69.6	167.0
		% within Resilience	44.3%	55.7%	100.0%
		Residual	-23.4	23.4	
	Resilient	Count	91	53	144
		Expected Count	84.0	60.0	144.0
		% within Resilience	63.2%	36.8%	100.0%
		Residual	7.0	-7.0	
	Not Resilient	Count	200	115	315
		Expected Count	183.7	131.3	315.0
		% within Resilience	63.5%	36.5%	100.0%
		Residual	16.3	-16.3	
Total	Count		365	261	626
	Expected Count		365.0	261.0	626.0
	% within Resilience		58.3%	41.7%	100.0%

Figure 33: Chi-Square Results for Interaction Effects between Resilience and Respondent's Age

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.355 <sup>a</sup>	2	.000
Likelihood Ratio	18.179	2	.000
Linear-by-Linear Association	14.485	1	.000
N of Valid Cases	626		

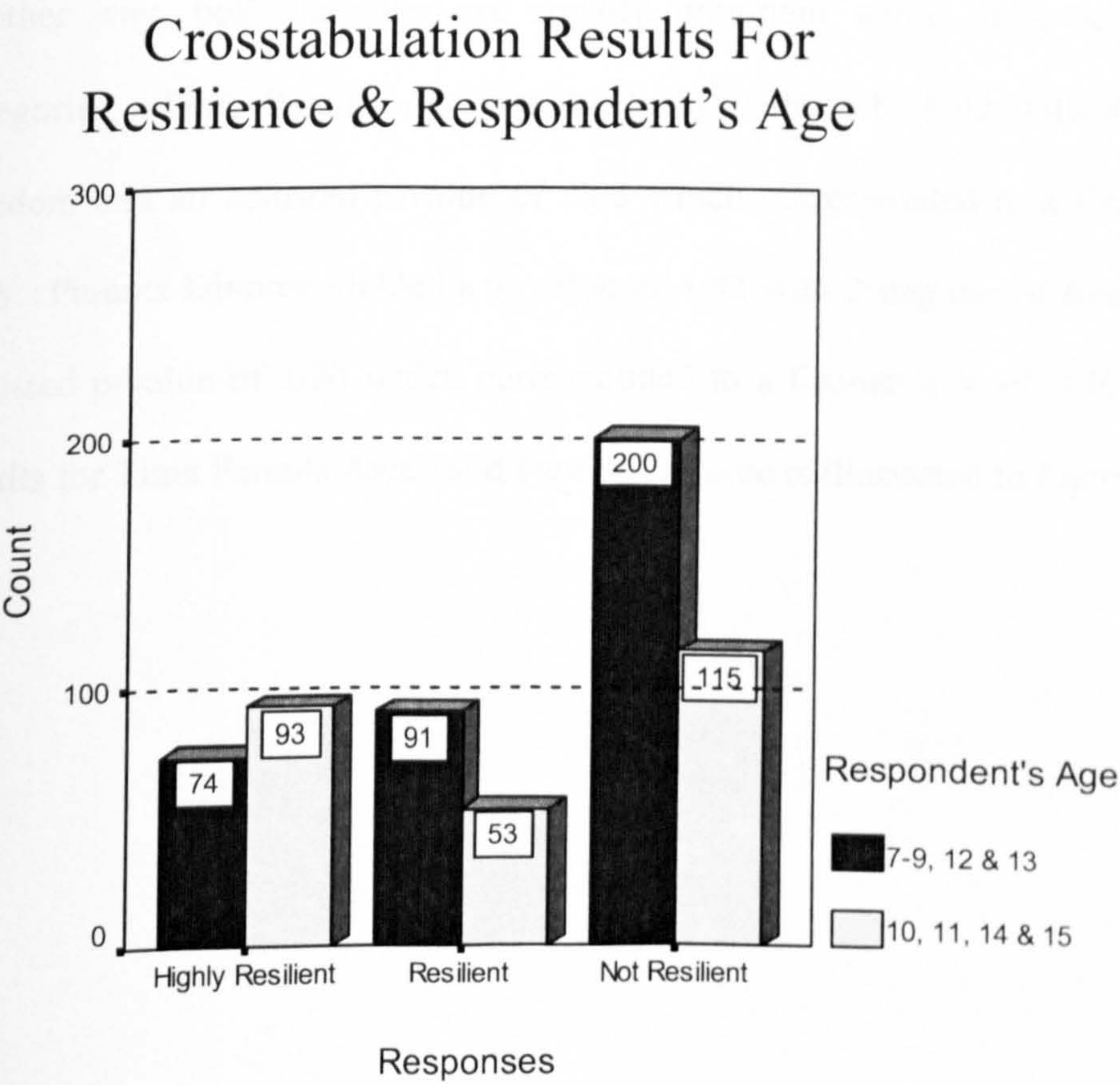
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 60.04.

Figure 34: Strength of Relationship Figure for the Association between Resilience and Respondent's Age

Symmetric Measures			
		Value	Approx. Sig.
2 x 3 Table	Cramer's V	.171	.000
N of Valid Cases		626	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 35: Graphical Representation for Interaction Effects between Resilience and Respondent's Age





The second level in the decision tree was broken down into two categories that correspond to the categories of Respondent's Age. Displaying an interaction effect, the Average Number of Days Parents Were Away from Home Each Month (Time Parents Away) turned out to be the next most significant and important variable, but only within the Respondent's Age Category No.1= Ages 7-9, 12 & 13. On the other hand, within the Respondent's Age Category No.2= Ages 10, 11, 14 & 15 the marital status of the participants' parents (Parents Divorce) was the next most significant and important variable. It should be noted that Time Parents Away is statistically equivalent to Parents Divorce within their stated age groups. Said in another way, both variables are equally important within their respective age categories. Time Parents Away yielded a  $\chi^2$  value of 16.02 with 4 degrees of freedom and an adjusted p-value of .003 which corresponded to a Cramer's V of .148. Parents Divorce yielded a  $\chi^2$  value of 4.82 with 2 degrees of freedom and an adjusted p-value of .090 which corresponded to a Cramer's V of .136. Statistical results for Time Parents Away and Parents Divorce is illustrated in Figures 36-43.



Figure 36: Crosstabulation Results for Levels of Resilience and Time Parents Away

Resilience * Time Parents Are Away Crosstabulation						
			Time Parents Are Away @ 3 Levels			Total
			0-2 Days	3-5 Days	6+ Days	
Resilience	Not Resilient	Count	55	30	115	200
		Expected Count	48.2	41.6	110.1	200.0
		% within Resilience @ 3 Levels	27.5%	15.0%	57.5%	100.0%
		Residual	6.8	-11.6	4.9	
	Resilient	Count	25	24	42	91
		Expected Count	21.9	18.9	50.1	91.0
		% within Resilience @ 3 Levels	27.5%	26.4%	46.2%	100.0%
		Residual	3.1	5.1	-8.1	
	Highly Resilient	Count	8	22	44	74
		Expected Count	17.8	15.4	40.8	74.0
		% within Resilience @ 3 Levels	10.8%	29.7%	59.5%	100.0%
		Residual	-9.8	6.6	3.2	
Total	Count		88	76	201	365
	Expected Count		88.0	76.0	201.0	365.0
	% within Resilience @ 3 Levels		24.1%	20.8%	55.1%	100.0%

Figure 37: Chi-Squared Results for Interaction Effects Between Resilience and Time Parents Away

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.019 <sup>a</sup>	4	.003
Likelihood Ratio	17.362	4	.002
Linear-by-Linear Association	1.400	1	.237
N of Valid Cases	365		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.41.

Figure 38: Strength of Relationship Figure for the Association between Resilience and Time Parents Away

Symmetric Measures		
	Value	Approx. Sig.
3 x 3 Table Cramer's V	.148	.003
N of Valid Cases	365	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 39: Graphical Representation for Crosstabulation Results Resilience and Time Parents Away

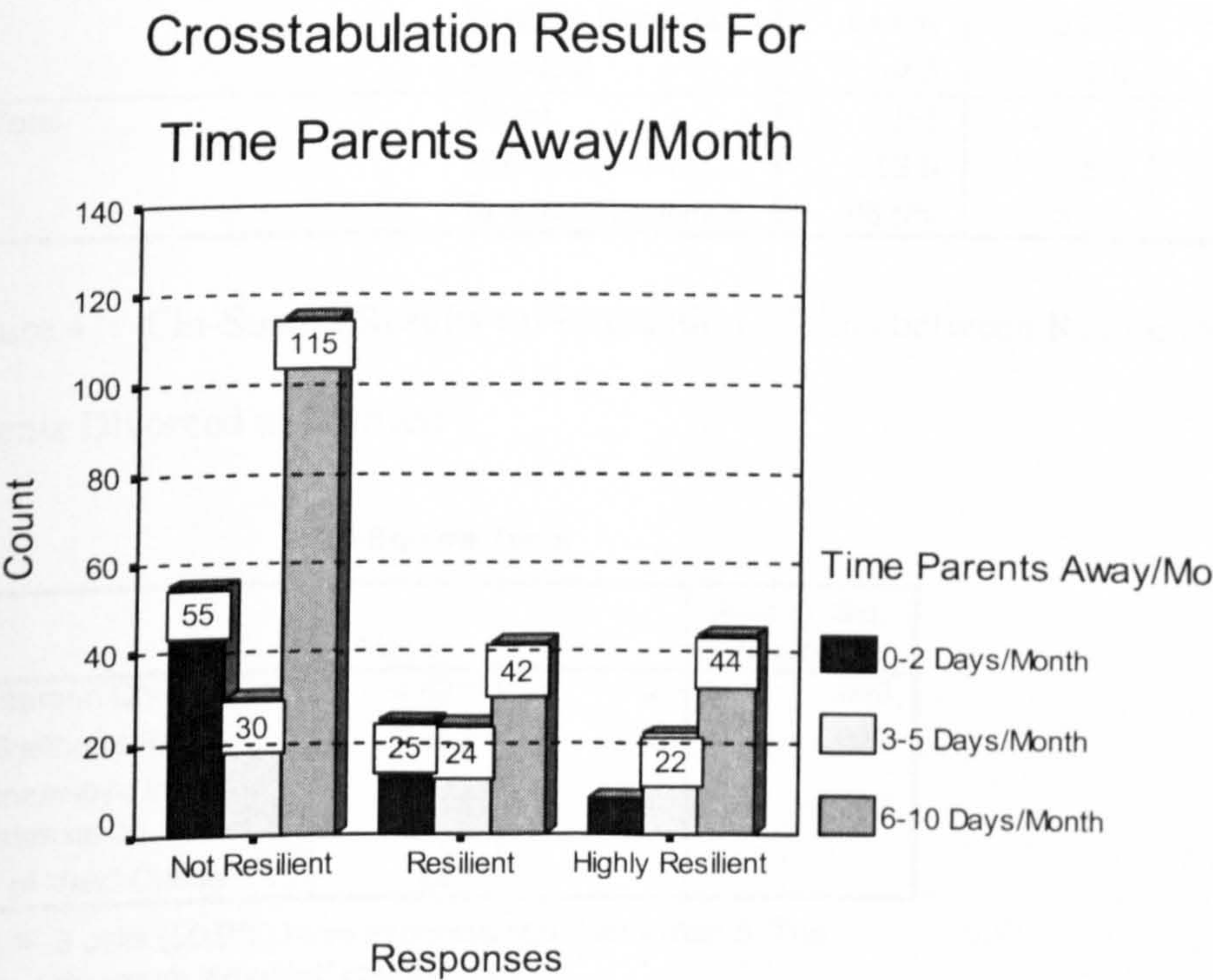




Figure 40: Crosstabulation Results for Levels of Resilience and Parents Divorced or Married

Resilience * Parents Divorced or Married Crosstabulation					
			Parents Divorced or Married		Total
			Married	Divorced	
Resilience	Highly Resilient	Count	93	0	93
		Expected Count	90.1	2.9	93.0
		% within Resilience	100.0%	.0%	100.0%
		Residual	2.9	-2.9	
	Resilient	Count	51	2	53
		Expected Count	51.4	1.6	53.0
		% within Resilience	96.2%	3.8%	100.0%
		Residual	-.4	.4	
	Not Resilient	Count	109	6	115
		Expected Count	111.5	3.5	115.0
		% within Resilience	94.8%	5.2%	100.0%
		Residual	-2.5	2.5	
Total	Count	253	8	261	
	Expected Count	253.0	8.0	261.0	
	% within Resilience	96.9%	3.1%	100.0%	

Figure 41: Chi-Square Results for Interaction Effects between Resilience and Parents Divorced or Married

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.823 <sup>a</sup>	2	.090
Likelihood Ratio	7.362	2	.025
Linear-by-Linear Association	4.613	1	.032
N of Valid Cases	261		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.62.

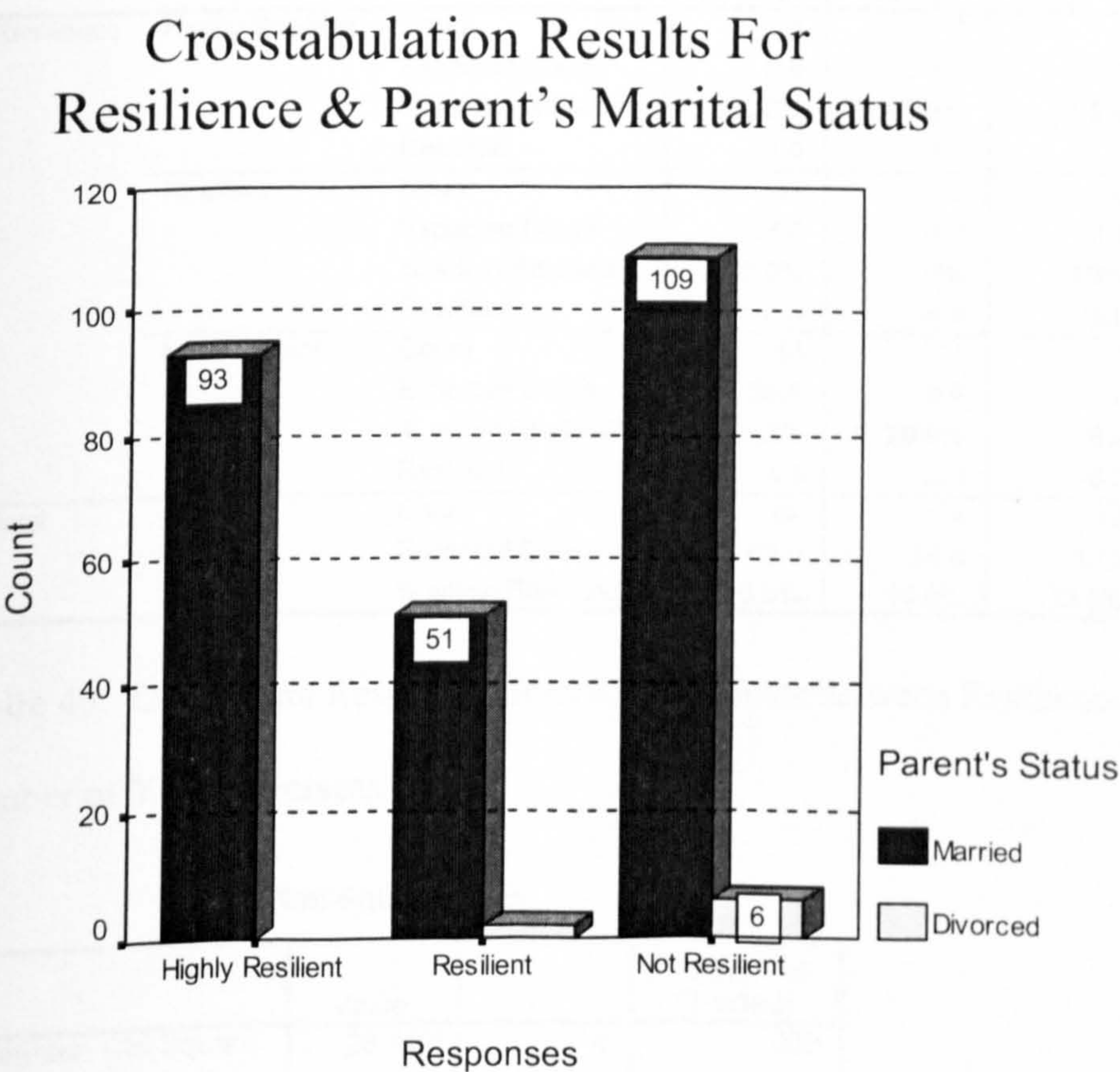


Figure 42: Strength of Relationship Figure for the Association between Resilience and Parents Divorced or Married

Symmetric Measures			
		Value	Approx. Sig.
3 x 2 Table	Cramer's V	.136	.090
N of Valid Cases		261	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 43: Graphical Representation of Interaction Effects between Resilience and Parents Divorced or Married



The third level in the decision tree model for resilience at 3-levels applies to students in the Respondent's Age Category No.1= Ages 7-9, 12 & 13 but only for those students whose parents are away from home on average between 0-2 days per



month. The next most significant and important variable for this subset of students is the number of years they had spent living overseas (Number of Year Overseas). Number of Year Overseas yielded a  $\chi^2$  value of 26.62 with 4 degrees of freedom and an adjusted p-value of .0002 which corresponded to a Cramer's V of .389. See Figures 44-47 below for the complete set of statistics for this variable.

Figure 44: Crosstabulation Results for Levels of Resilience and Number of Years Overseas

Resilience * Number of Years Overseas Crosstabulation						
			Number of Years Overseas			Total
			3-6, 7-9	10-14	1-2	
Resilience	Highly Resilient	Count	4	3	1	8
		Expected Count	5.6	1.3	1.1	8.0
		% within Resilience	50.0%	37.5%	12.5%	100.0%
		Residual	-1.6	1.7	-.1	
	Resilient	Count	15	0	10	25
		Expected Count	17.6	4.0	3.4	25.0
		% within Resilience	60.0%	.0%	40.0%	100.0%
		Residual	-2.6	-4.0	6.6	
	Not Resilient	Count	43	11	1	55
		Expected Count	38.8	8.8	7.5	55.0
		% within Resilience	78.2%	20.0%	1.8%	100.0%
		Residual	4.3	2.3	-6.5	
Total	Count		62	14	12	88
	Expected Count		62.0	14.0	12.0	88.0
	% within Resilience		70.5%	15.9%	13.6%	100.0%

Figure 45: Chi-Square Results for Interaction Effects between Resilience and Number of Years Overseas

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.612 <sup>a</sup>	4	.000
Likelihood Ratio	28.886	4	.000
Linear-by-Linear Association	7.612	1	.006
N of Valid Cases	88		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is 1.09.

Figure 46: Strength of Relationship Figure for the Association between Resilience and Number of Years Overseas

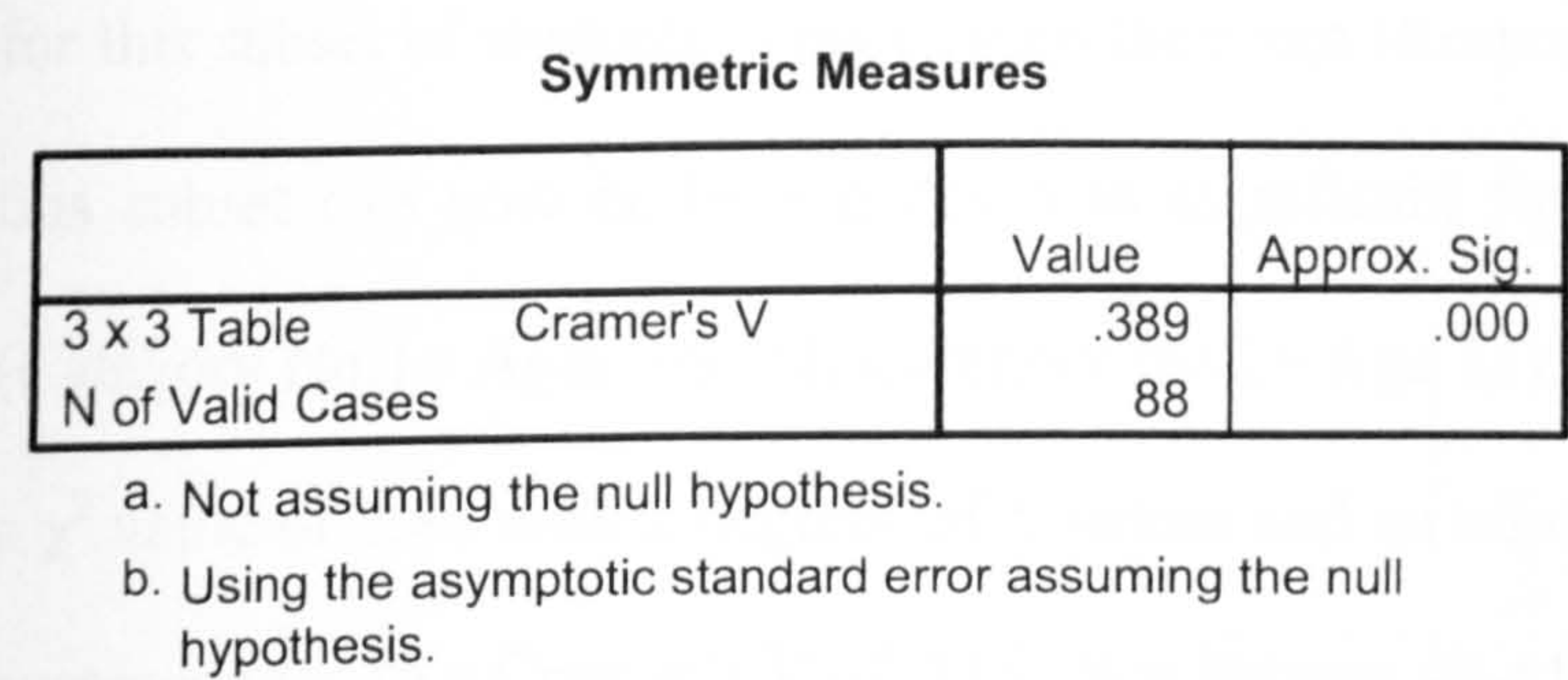
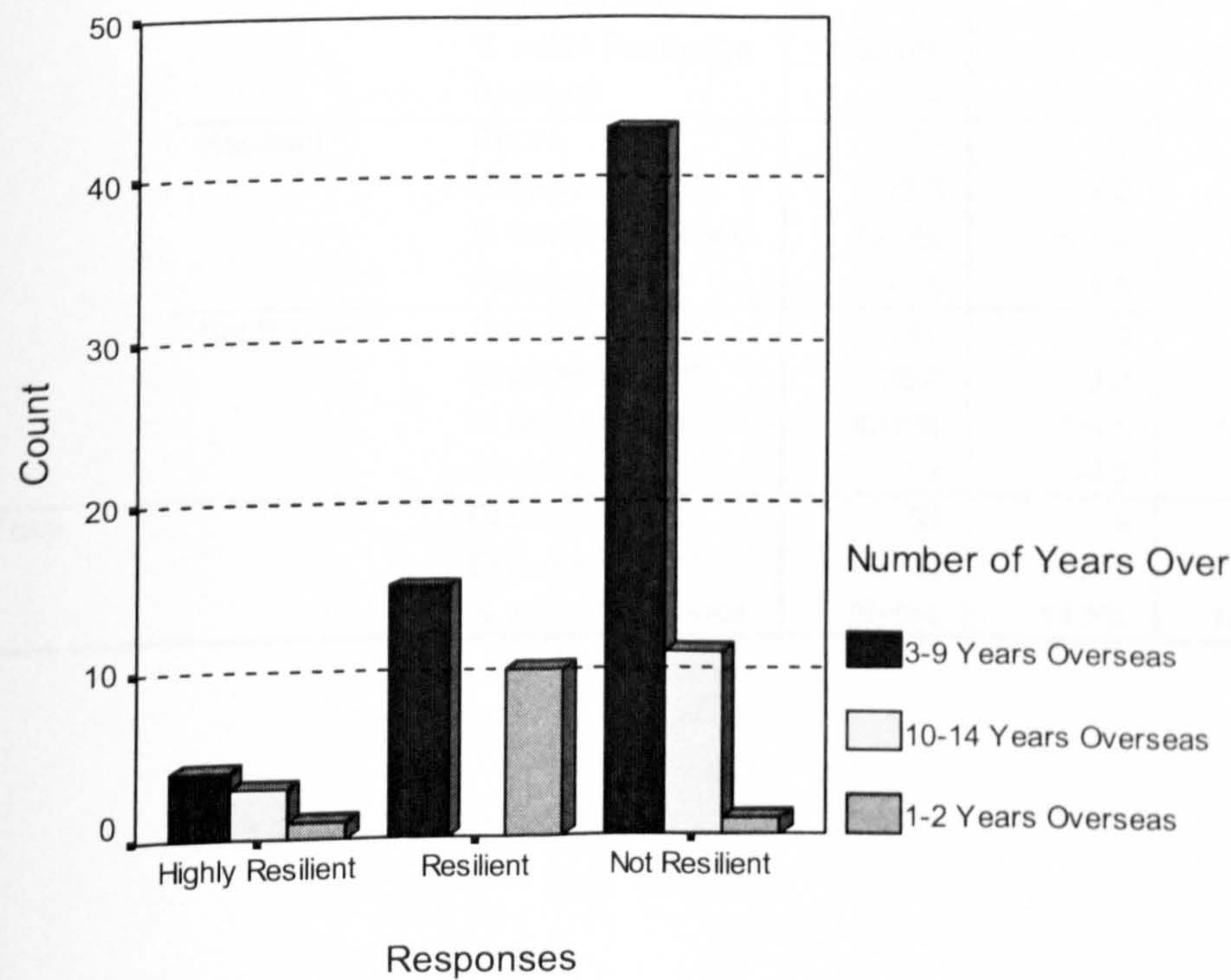


Figure 47: Graphical Representation of Interaction Effects between Resilience and Number of Years Overseas.

**Crosstabulation Results For  
Resilience & Number of Years Overseas**



The forth level in the decision tree model for resilience at 3-levels applies to only those students in the Respondent's Age Category No.1= Ages 7-9, 12 & 13,



and whose parents are away from home on average between 0-2 days per month, and who have been overseas for 3-9 years. The most significant and important variable for this subset of students is once again their age (Respondent's Age), which within this subset can now be broken down as significant for two equivalent categories (Category No.1= Ages 7-9, 12; Category No.2= Age 13). Respondent's Age yielded a  $\chi^2$  value of 7.81 with 2 degrees of freedom and an adjusted p-value of .080 which corresponded to a Cramer's V of .355. See Figures 48-51 below for the complete set of statistics for this variable.

Figure 48: Crosstabulation Results for Levels of Resilience and Respondent's Age

Resilience \* Respondent's Age Crosstabulation

			Respondent's Age		Total
			7-9, 12	13	
Resilience	Highly Resilient	Count	2	2	4
		Expected Count	3.4	.6	4.0
		% within Resilience	50.0%	50.0%	100.0%
		Residual	-1.4	1.4	
	Resilient	Count	11	4	15
		Expected Count	12.8	2.2	15.0
		% within Resilience	73.3%	26.7%	100.0%
		Residual	-1.8	1.8	
	Not Resilient	Count	40	3	43
		Expected Count	36.8	6.2	43.0
		% within Resilience	93.0%	7.0%	100.0%
		Residual	3.2	-3.2	
	Total	Count	53	9	62
		Expected Count	53.0	9.0	62.0
		% within Resilience	85.5%	14.5%	100.0%

Figure 49: Chi-Square Results for Interaction Effects between Resilience and Respondent's Age

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.813 <sup>a</sup>	2	.020
Likelihood Ratio	6.660	2	.036
Linear-by-Linear Association	7.668	1	.006
N of Valid Cases	62		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .58.

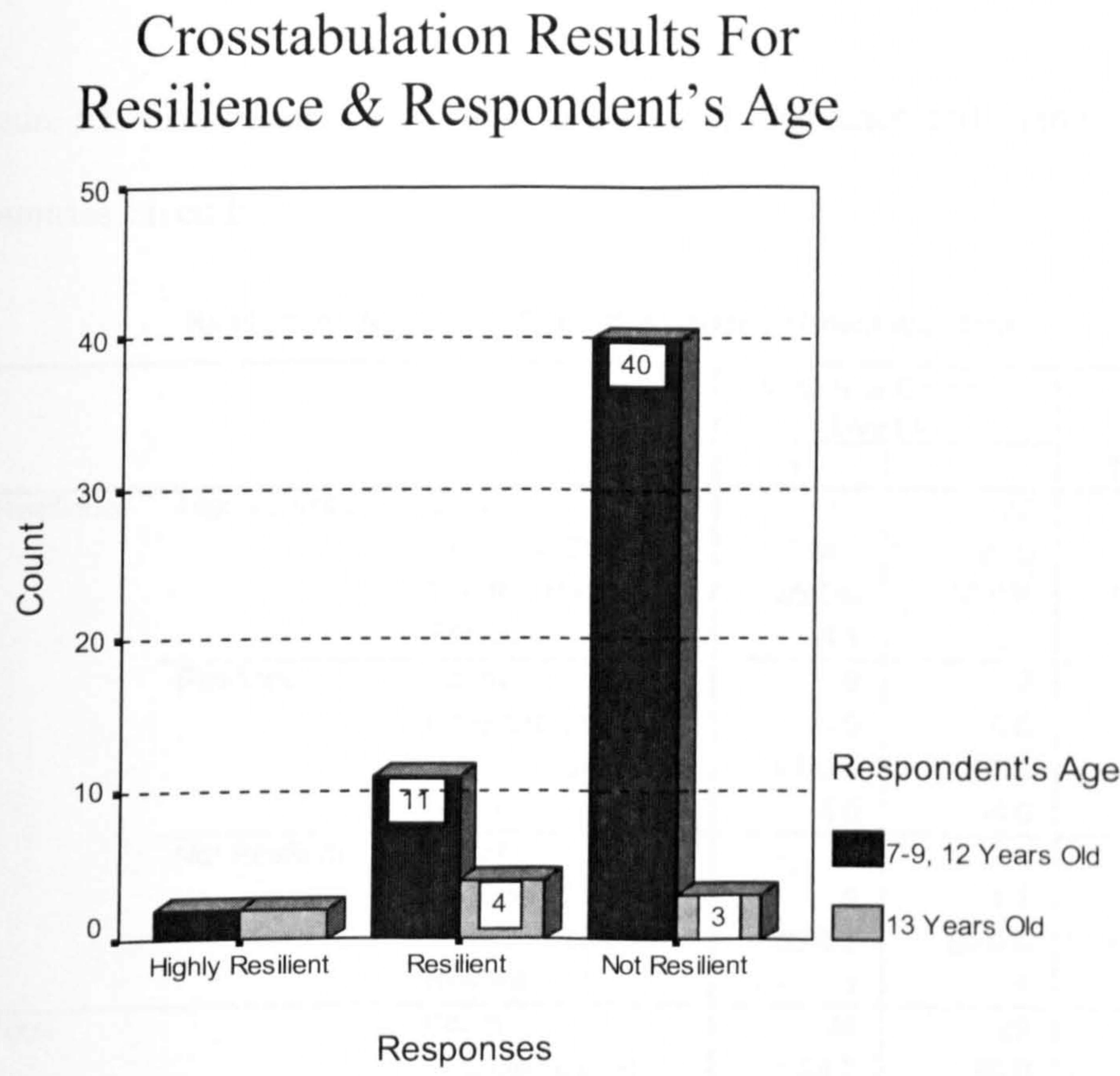
Figure 50: Strength of Relationship Figure for the Association between Resilience and Respondent's Age

Symmetric Measures			
		Value	Approx. Sig.
3 x 2 Table	Cramer's V	.355	.020
N of Valid Cases		62	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.



Figure 51: Graphical Representation of Interaction Effects between Resilience and Respondent's Age



The fifth and final level in the decision tree model for resilience at 3-levels applies to only those students in the Respondent's Age Category No.1= Ages 7-9 & 12 whose parents are away from home on average between 0-2 days per month, who have been overseas for 3-9 years. Note that the Respondent's Age Category No.2= Age 13 is no longer included at this stage of the decision tree. The next most significant and important variable for this subset of students is the number of countries they have lived in (Number of Countries Lived In). Respondents in this group are those that have lived in at least 1-3+ international locations. Number of Countries Lived In yielded a  $\chi^2$  value of 7.651 with 2 degrees of freedom and an



adjusted p-value of .0827 which corresponded to a Cramer’s V of .380. See Figures 52-55 below for the complete set of statistics for this variable.

Figure 52: Crosstabulation Results for Levels of Resilience and Number of Countries Lived In

Resilience * Number of Countries Lived In Crosstabulation					
			Number of Countries Lived In		Total
			1	2+	
Resilience	Highly Resilient	Count	14	26	40
		Expected Count	18.1	21.9	40.0
		% within Resilience	35.0%	65.0%	100.0%
		Residual	-4.1	4.1	
	Resilient	Count	9	2	11
		Expected Count	5.0	6.0	11.0
		% within Resilience	81.8%	18.2%	100.0%
		Residual	4.0	-4.0	
	Not Resilient	Count	1	1	2
		Expected Count	.9	1.1	2.0
		% within Resilience	50.0%	50.0%	100.0%
		Residual	.1	-.1	
Total	Count		24	29	53
	Expected Count		24.0	29.0	53.0
	% within Resilience		45.3%	54.7%	100.0%

Figure 53: Chi-Square Results for Interaction Effects between Resilience and Number of Countries Lived In

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.651 <sup>a</sup>	2	.022
Likelihood Ratio	8.002	2	.018
Linear-by-Linear Association	4.751	1	.029
N of Valid Cases	53		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .91.

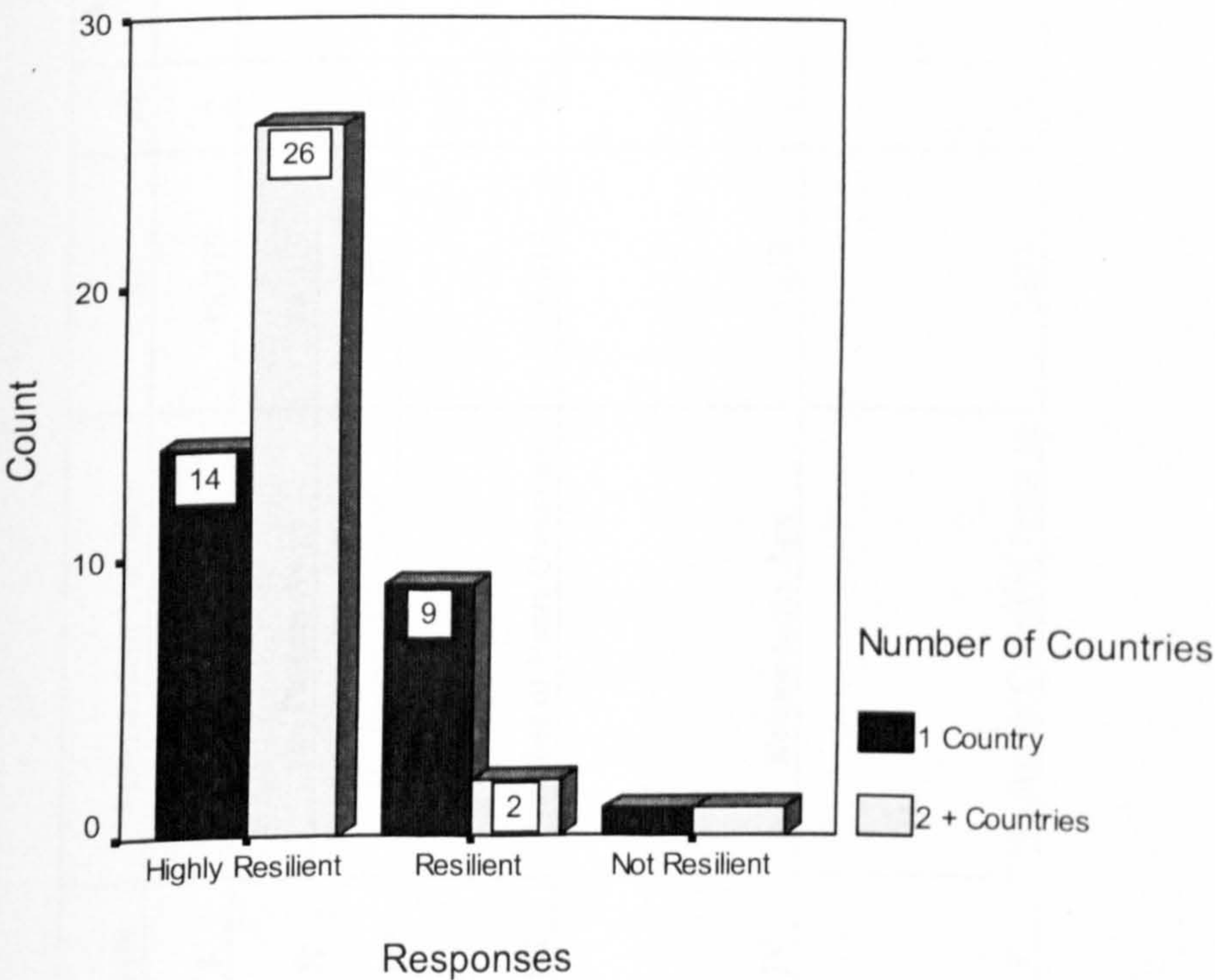
Figure 54: Strength of Relationship Figure for the Association between Resilience and Number of Countries Lived In

Symmetric Measures			
		Value	Approx. Sig.
3 x 2 Table	Cramer's V	.380	.022
N of Valid Cases		53	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 55: Graphical Representation of Interaction Effects between Resilience and Number of Countries Lived In

Crosstabulation Results For Resilience & Number of Countries Lived In



A summary Figure of significant and important variables just detailed for resilience at 3-levels is presented in the Figure below.



Figure 56: Summary Figure of Significant and Important Variables for Resilience at 3-Levels

Levels	Independent Variable	X2	df	Adjusted P-value	Cramer's V	Condition
I	Respondent's Age	18.355	2	0.004	0.171	Across All Participants (n=626)
II	A - Parents Away	16.019	4	0.003	0.148	Across All Participants (n=365) Within Ages 7-9, 12, 13
	B - Parents Divorced	4.823	2	0.090	0.135	Across All Participants (n=261) Within Ages 10, 11, 14-15
III	Number of Years Overseas	26.612	4	0.0002	0.389	Across All Participants (n=88) Within (1) Ages 7-9, 121, 13 AND Within (2) Parents Away 0-2 Days
IV	Respondent's Age	7.813	2	0.080	0.355	Across All Participants (n=62) Within (1) Ages 7-9, 12 AND Within (2) Parents Away 0-2 Days AND Within (3) Number of Years Overseas = 3-9
V	Number of Countries Lived In	7.651	2	0.087	0.380	Across All Participants (n=53) Within (1) Ages 7-9, 12 AND Within (2) Parents Away 0-2 Days AND Within (3) Number of Years Overseas = 3-9



**Collapsed Data: 2-Levels of Criterion Order**

The development of another potential predictive model for resilience at 2-levels also began by examining the possible predictor and dependent variables. In order to conduct an analysis of resilience at 2-levels, it was again necessary to collapse the raw data into two levels of criterion order for resilience. Using Grotberg's Theory of Resilience, conditions for levels of resilience were executed which ultimately allowed the data to be reduced from the original 5 categories down to 2: 'Not Resilient' and 'Resilient'.

Those participants meeting the criteria of 'Resilient' either (1) reported some degree of resilience in all three of the "I Have" statements, as well as all three of either the "I Can" or "I Am" statements on the CPRC-B, or (2) reported some degree of resilience to all of the "I Have", "I Am", and "I Can" statements on the CPRC-B. Participants who were categorized as 'Not Resilient' either (1) did not report resilience on at least one of the "I Have" statements, or (2) reported some degree of resilience to all the "I Have" statements, but failed to report some degree of resilience to all three of either the "I Can" or "I Am" statements. A series of IF-THEN statements helped in categorizing this data into their respective category. The end result was a set of nominal data that aggregated the assessed levels of resilience into two levels: 'Not Resilient' and 'Resilient'.

The Independent (Predictor) variables extracted from the Demographics Form were the same as used in the 3-level criterion model. Once the categories of the predictors and the target variables were determined, a logical step-by-step analysis of levels of resilience in the sample was evaluated in order to answer the research questions posed by this study.

Quantitative Results

2-Levels of Criterion Order:

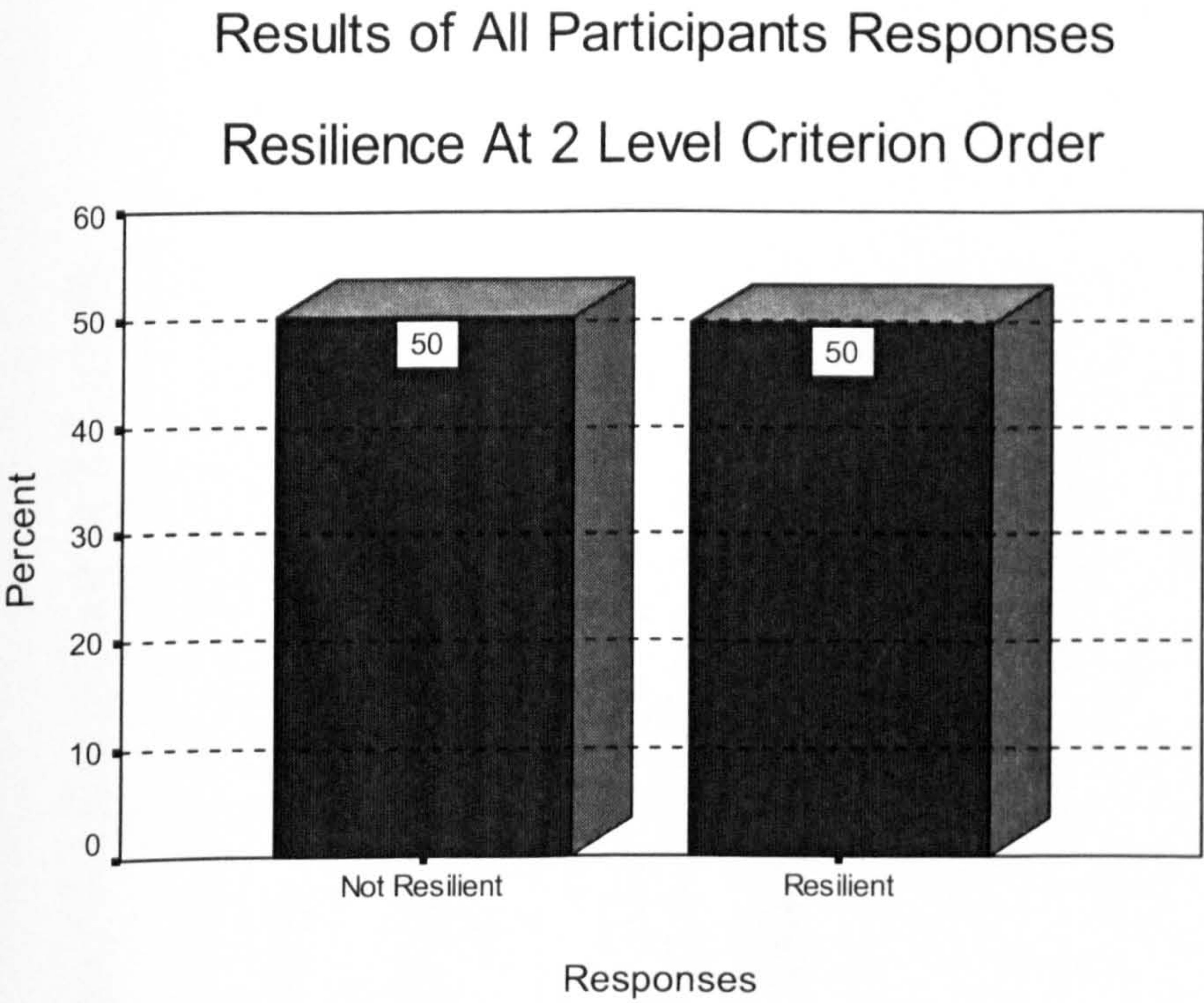
The descriptive statistics from the collapsed data into 2-levels revealed that from the total sample (n = 626), 315 (50.32%) students were evaluated as Not Resilient, and 311 (49.68%) students were evaluated as Resilient. Similar to the previous decision tree model, data from this model shows approximately half of the participants (49.68%) demonstrating some degree of resilience, while the other half of the participants (50.32%) not demonstrating resilience. Figures 57-58 details the descriptive statistics for the two categories: ‘Not Resilient’ and ‘Resilient’.

Figure 57: Descriptive Statistics for Resilience at 2-Levels

Resilience At 2 Levels					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Resilient	315	50.3	50.3	50.3
	Resilient	311	49.7	49.7	100.0
	Total	626	100.0	100.0	



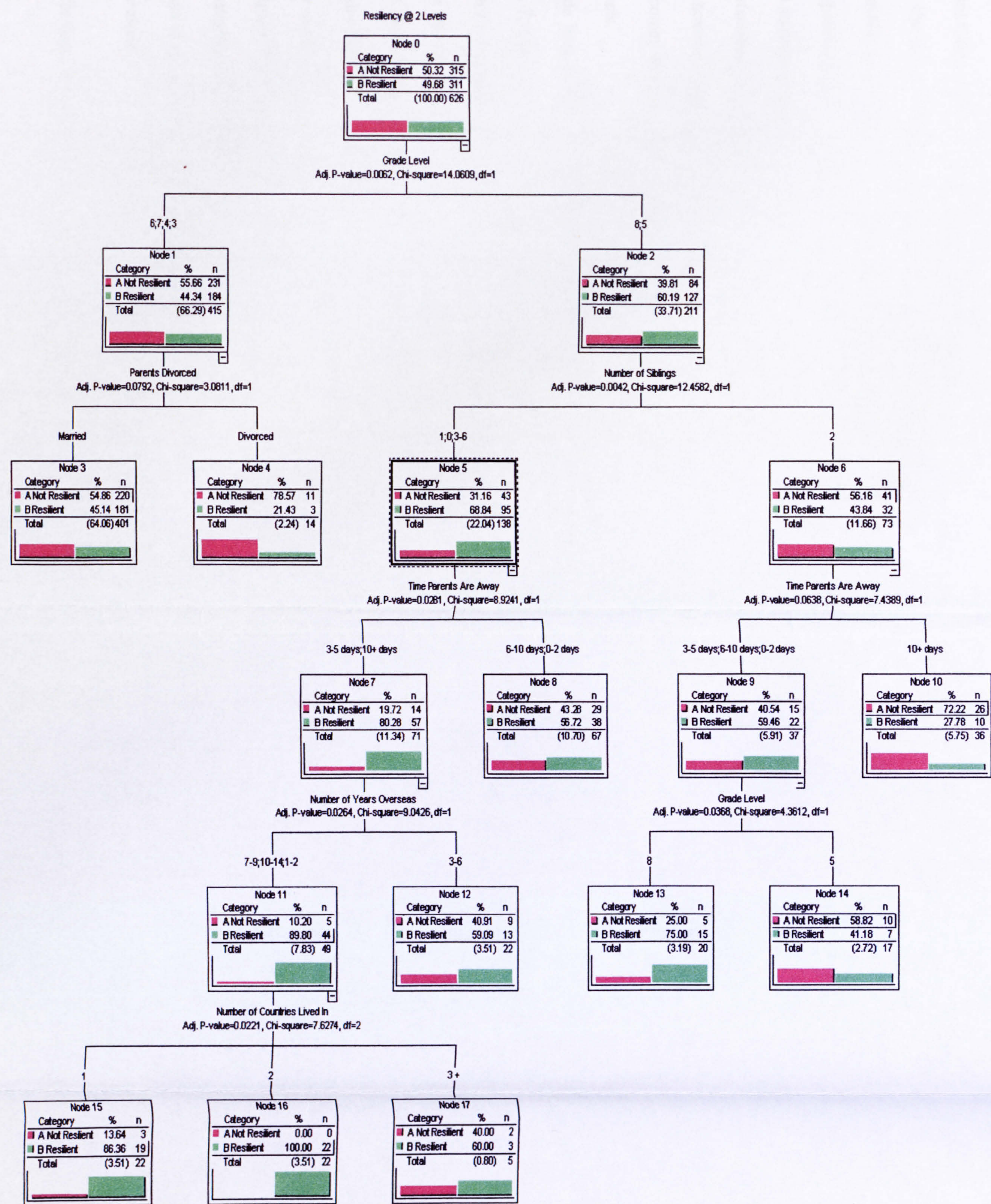
Figure 58: Graphic Representation of Resilience at 2-Levels



The Exhaustive CHAID procedure was once again used to analyze this data set. For this analysis, an  $\alpha$  level to enter a variable of 0.10 was employed, with a limiting number of levels of 8. For this analysis, an  $\alpha$  level to enter a variable of 0.10 was employed in order to reduce the probability of committing a Type II ( $\beta$ ) error, with a limiting number of 8 levels permitted in the generation of the subsequent decision tree. The decision tree model output for the 2-level criterion order of resilience is shown in Figure 59 on the following page.



Figure 59: Decision Tree Model Output for Resilience at 2-Levels





From the decision tree model, it can be seen that the first most significant and important variable that is associated with resilience at 2-levels is Grade Level. Grade Level is separated into two categories, grouping students in grades 3, 4, 6 & 7 in one group and students in grades 5 & 8 in another group. It is important to note that there is no statistically significant association between grade and either grade group by itself, however, when collapsing the grade groups into sub-categories, Grade Level becomes the most significant and important factor in explaining resilience at 2-levels.

With Grade broken down into two equivalent categories (Category No.1= Grades 3, 4, 6 & 7; Category No.2= Grades 5 & 8), statistical results yielded a  $\chi^2$  value of 14.06 with 1 degree of freedom, an adjusted p-value of .0062 which corresponded to a Phi-value of .150. Figure 60 details the statistical results of the two grade groups and how they correspond to the two levels of resilience. These results show that due to chance and chance alone, the Grade Category No.1= Grades 3, 4, 6 & 7 has a much higher observed percentages of resilient students than the other Grade Category No.2= Grades 5 & 8. Within the same grade group of students, the statistics for none resilient students shows a lower observed percentage of respondent's than in the other Grade Category No.2= Grades 5 & 8, again due to chance and chance alone.

Statistical results for Grade Level are illustrated in Figures 60-63 below.

Figure 60: Crosstabulation Results for Levels of Resilience and Grade Level

Resilience * Grade Crosstabulation					
			Grade		Total
			3, 4, 6, 7	5 & 8	
Resilience	Not Resilient	Count	231	84	315
		Expected Count	208.8	106.2	315.0
		% within Resilience	73.3%	26.7%	100.0%
		% of Total	36.9%	13.4%	50.3%
	Resilient	Count	184	127	311
		Expected Count	206.2	104.8	311.0
		% within Resilience	59.2%	40.8%	100.0%
		% of Total	29.4%	20.3%	49.7%
Total	Count	415	211	626	
	Expected Count	415.0	211.0	626.0	
	% within Resilience	66.3%	33.7%	100.0%	
	% of Total	66.3%	33.7%	100.0%	

Figure 61: Chi-Square Results for Interaction Effects between Resilience and Grade Level

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.061 <sup>b</sup>	1	.000
Continuity Correction <sup>a</sup>	13.434	1	.000
Likelihood Ratio	14.133	1	.000
Linear-by-Linear Association	14.038	1	.000
N of Valid Cases	626		

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 104.83.

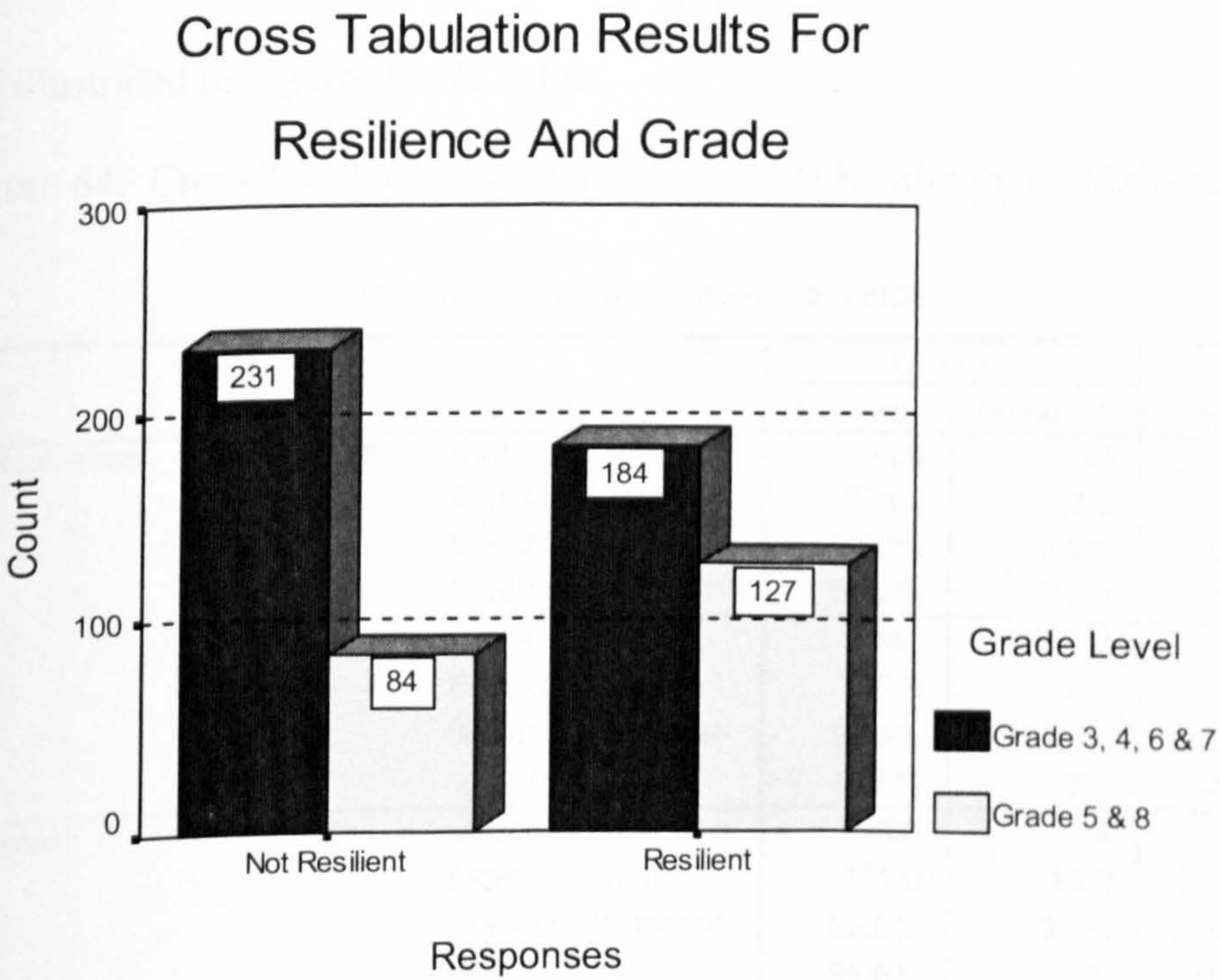


Figure 62: Strength of Relationship Figure for the Association between Resilience and Grade Level

Symmetric Measures		
		Value
2 x 2 Table	Phi	.150
N of Valid Cases		626

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 63: Graphical Representation of Interaction Effects between Resilience and Grade Level



The second level in the decision tree was broken down into two categories that correspond to the two Grade level categories. Displaying an interaction effect, the marital status of the participants parents (Parents Divorce) turned out to be the next most significant and important variable, but only for those students within the



Grade Category No.1= Grades 3, 4, 6, & 7. On the other hand, for students within the Grade Category No.2= Grades 5 & 8 the number of siblings they had (Number of Siblings) was the next most significant and important variable. It should be noted that Parents Divorce is statistically equivalent to Number of Siblings within their stated grade level groups. Said in another way, both variables are equally important within their respective grade level categories. Parents Divorce yielded a  $\chi^2$  value of 3.0811 with 1 degree of freedom and an adjusted p-value of .0792 which corresponded to a Phi-value -.086. Number of Siblings yielded a  $\chi^2$  value of 12.4582 with 1 degree of freedom and an adjusted p-value of .0042 which corresponded to a Phi-value of -.243. Statistical results for Parents Divorce and Number of Siblings are illustrated in Figures 64-71 below.

Figure 64: Cross Tabulation Results for Levels of Resilience and Divorce

Resilience * Divorce Crosstabulation					
			Divorce		Total
			Married	Divorced	
Resilience	Not Resilient	Count	220	11	231
		Expected Count	223.2	7.8	231.0
		% within Resilience	95.2%	4.8%	100.0%
		% of Total	53.0%	2.7%	55.7%
	Resilient	Count	181	3	184
		Expected Count	177.8	6.2	184.0
		% within Resilience	98.4%	1.6%	100.0%
		% of Total	43.6%	.7%	44.3%
Total	Count		401	14	415
	Expected Count		401.0	14.0	415.0
	% within Resilience		96.6%	3.4%	100.0%
	% of Total		96.6%	3.4%	100.0%

Figure 65: Chi-Square Results for Interaction Effects between Resilience and Divorce

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.081 <sup>b</sup>	1	.079
Continuity Correction <sup>a</sup>	2.195	1	.138
Likelihood Ratio	3.325	1	.068
Linear-by-Linear Association	3.074	1	.080
N of Valid Cases	415		

- a. Computed only for a 2x2 table
- b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.21.

Figure 66: Strength of Relationship Figure for the Association between Resilience and Divorce

Symmetric Measures		
	Value	Approx. Sig.
2 x 2 Table      Phi	.086	.079
N of Valid Cases	415	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.



Figure 67: Graphical Representation of Interaction Effects between Resilience and Divorce

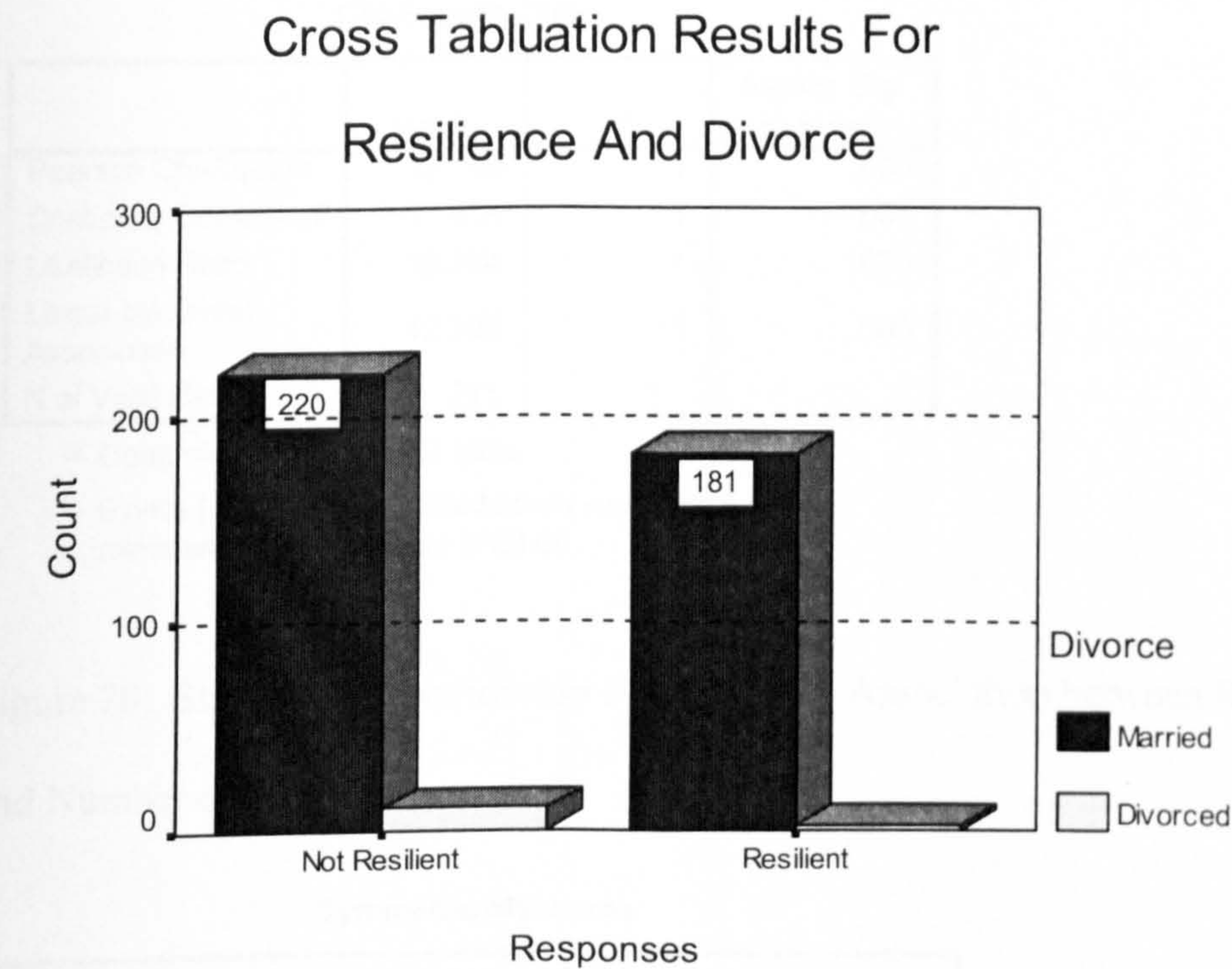


Figure 68: Crosstabulation Results for Levels of Resilience and Number of Siblings

Resilience * Number of Siblings Crosstabulation					
			Number of Siblings		Total
			0, 1, 3-6	2	
Resilience	Not Resilient	Count	43	41	84
		Expected Count	54.9	29.1	84.0
		% within Resilience	51.2%	48.8%	100.0%
		% of Total	20.4%	19.4%	39.8%
	Resilient	Count	95	32	127
		Expected Count	83.1	43.9	127.0
		% within Resilience	74.8%	25.2%	100.0%
		% of Total	45.0%	15.2%	60.2%
Total	Count		138	73	211
	Expected Count		138.0	73.0	211.0
	% within Resilience		65.4%	34.6%	100.0%
	% of Total		65.4%	34.6%	100.0%

Figure 69: Chi-Square Results for Interaction Effects between Resilience and Number of Siblings

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.458 <sup>b</sup>	1	.000
Continuity Correction <sup>a</sup>	11.436	1	.001
Likelihood Ratio	12.374	1	.000
Linear-by-Linear Association	12.399	1	.000
N of Valid Cases	211		

- a. Computed only for a 2x2 table
- b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.06.

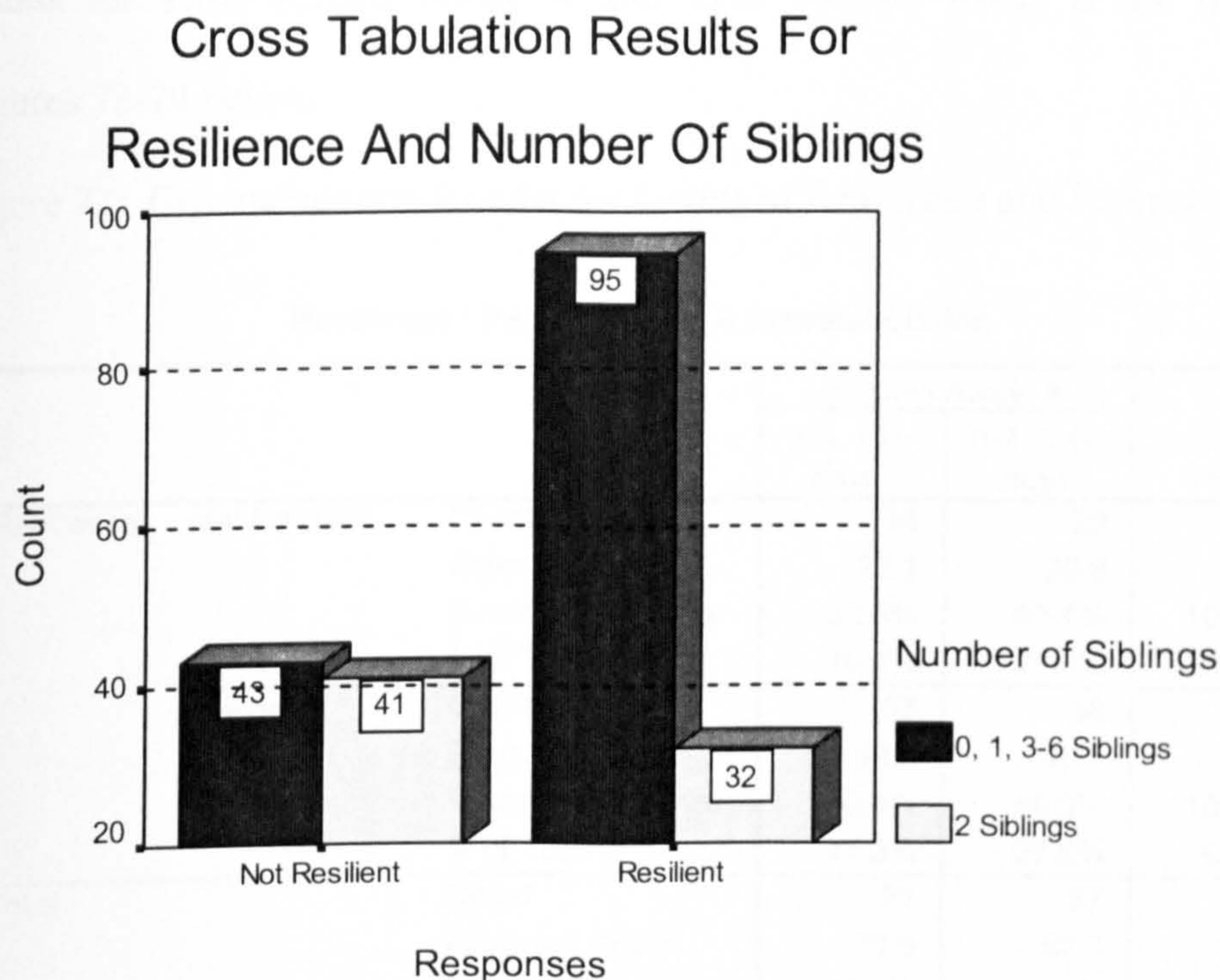
Figure 70: Strength of Relationship Figure for the Association between Resilience and Number of Siblings

Symmetric Measures		
	Value	Approx. Sig.
2 x 2 Table      Phi	.243	.000
N of Valid Cases	211	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.



Figure 71: Graphical Representation of Interaction Effects between Resilience and Number of Siblings



The third most significant and important variable that is associated with resilience at 2-levels is the Average Number of Days Parents Were Away from Home Each Month (Time Parents Away). Displaying an interaction effect, Time Parents Away is also separated into two categories that have grouped students with 0, 1, & 3-6 siblings in one group (Time Parent Away\_A), and students with two siblings in another group (Time Parents Away\_B). It should be noted that both categories of Time Parents Away are statistically equivalent to each other within their corresponding Number of Sibling groups, meaning that both categories of Time Parents Away are equally important within their respective Number of Sibling groups. Time Parents Away\_A yielded a  $\chi^2$  value of 8.9241 with 1 degree of freedom and an adjusted p-value of .0281 which corresponded to a Phi-value -.254.



Time Parents Away\_B yielded a  $\chi^2$  value of 7.4389 with 1 degree of freedom and an adjusted p-value of .0638 which corresponded to a Phi-value of -.319. Statistical results for Time Parents Away\_A and Time Parents Away\_B are illustrated in Figures 72-79 below.

Figure 72: Crosstabulation Results for Levels of Resilience and Parents Away\_A

Resilience * Parents Away_A Crosstabulation					
			Parents Away A		Total
			3-5, 10+ days	0-2, 6-10 days	
Resilience	Not Resilient	Count	14	29	43
		Expected Count	22.1	20.9	43.0
		% within Resilience	32.6%	67.4%	100.0%
		% of Total	10.1%	21.0%	31.2%
	Resilient	Count	57	38	95
		Expected Count	48.9	46.1	95.0
		% within Resilience	60.0%	40.0%	100.0%
		% of Total	41.3%	27.5%	68.8%
Total	Count		71	67	138
	Expected Count		71.0	67.0	138.0
	% within Resilience		51.4%	48.6%	100.0%
	% of Total		51.4%	48.6%	100.0%

Figure 73: Chi-Square Results for Interaction Effects between Resilience and Parents Away\_A

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.924 <sup>b</sup>	1	.003
Continuity Correction <sup>a</sup>	7.859	1	.005
Likelihood Ratio	9.054	1	.003
Linear-by-Linear Association	8.859	1	.003
N of Valid Cases	138		

a. Computed only for a 2x2 table  
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.88.

Figure 74: Strength of Relationship Figure for the Association between Resilience and Parents Away\_A

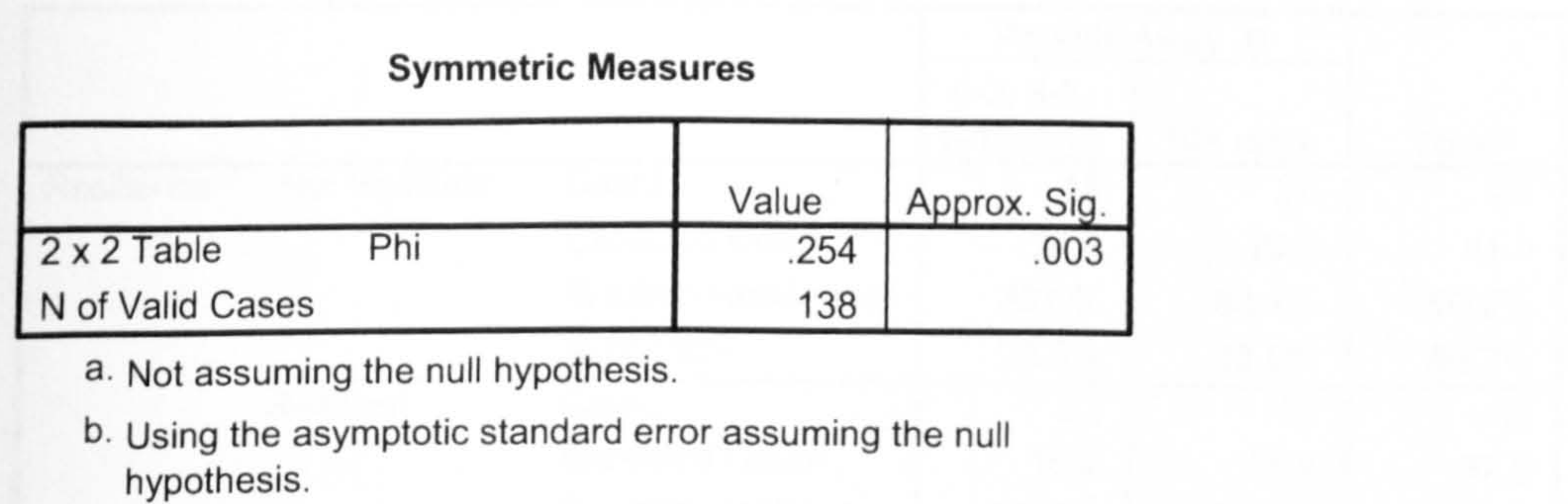


Figure 75: Graphical Representation of Interaction Effects between Resilience and Parents Away\_A

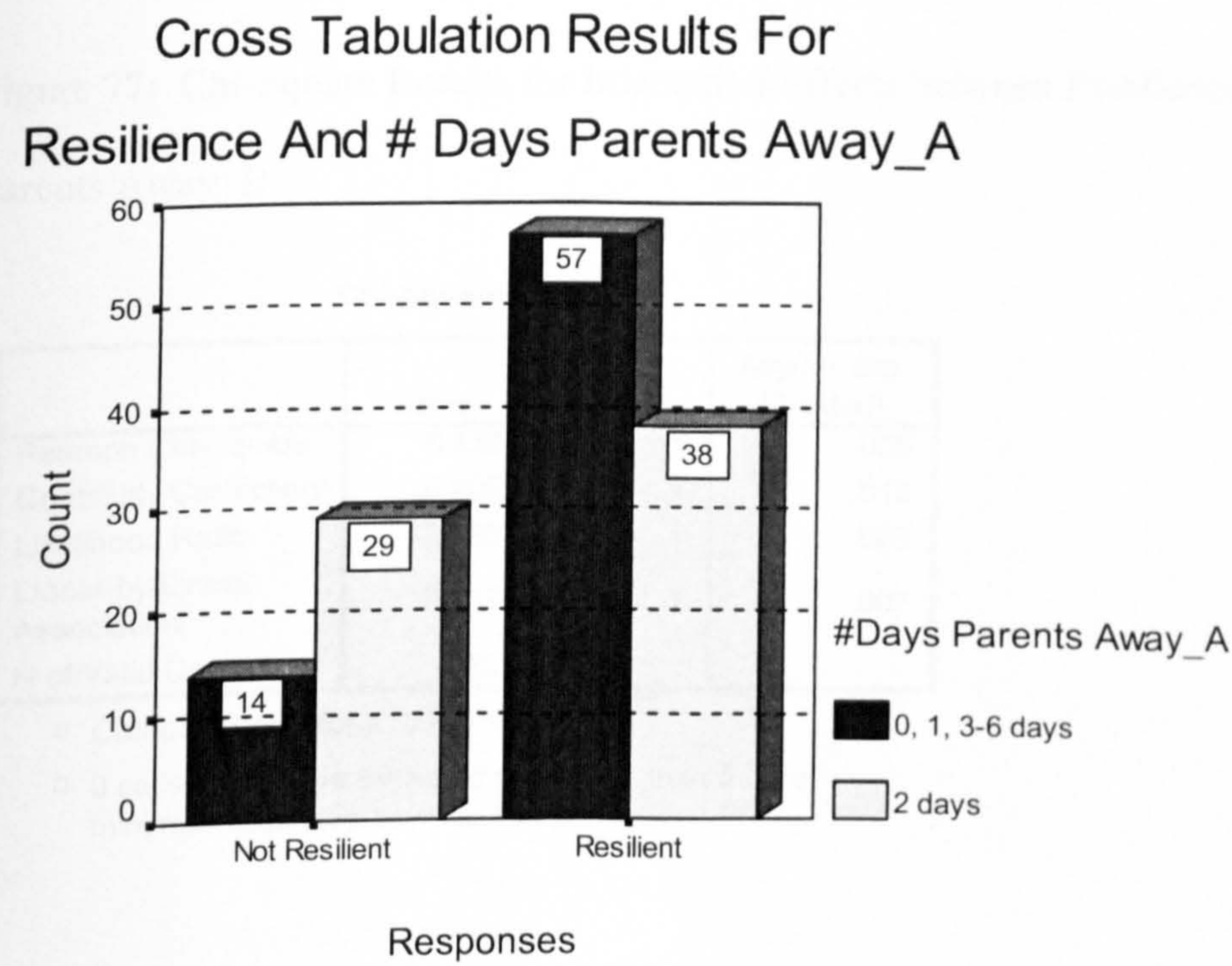




Figure 76: Crosstabulation Results for Levels of Resilience and Parents Away\_B

Resilience * Parents Away_B Crosstabulation					
			Parents Away B		Total
			0-2, 3-5, 6-10 days	10+ days	
Resilience	Not Resilient	Count	15	26	41
		Expected Count	20.8	20.2	41.0
		% within Resilience	36.6%	63.4%	100.0%
		% of Total	20.5%	35.6%	56.2%
	Resilient	Count	22	10	32
		Expected Count	16.2	15.8	32.0
		% within Resilience	68.8%	31.3%	100.0%
		% of Total	30.1%	13.7%	43.8%
Total	Count		37	36	73
	Expected Count		37.0	36.0	73.0
	% within Resilience		50.7%	49.3%	100.0%
	% of Total		50.7%	49.3%	100.0%

Figure 77: Chi-Square Results for Interaction Effects between Resilience and Parents Away\_B

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.439 <sup>b</sup>	1	.006
Continuity Correction <sup>a</sup>	6.208	1	.013
Likelihood Ratio	7.586	1	.006
Linear-by-Linear Association	7.337	1	.007
N of Valid Cases	73		

- a. Computed only for a 2x2 table
- b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.78.



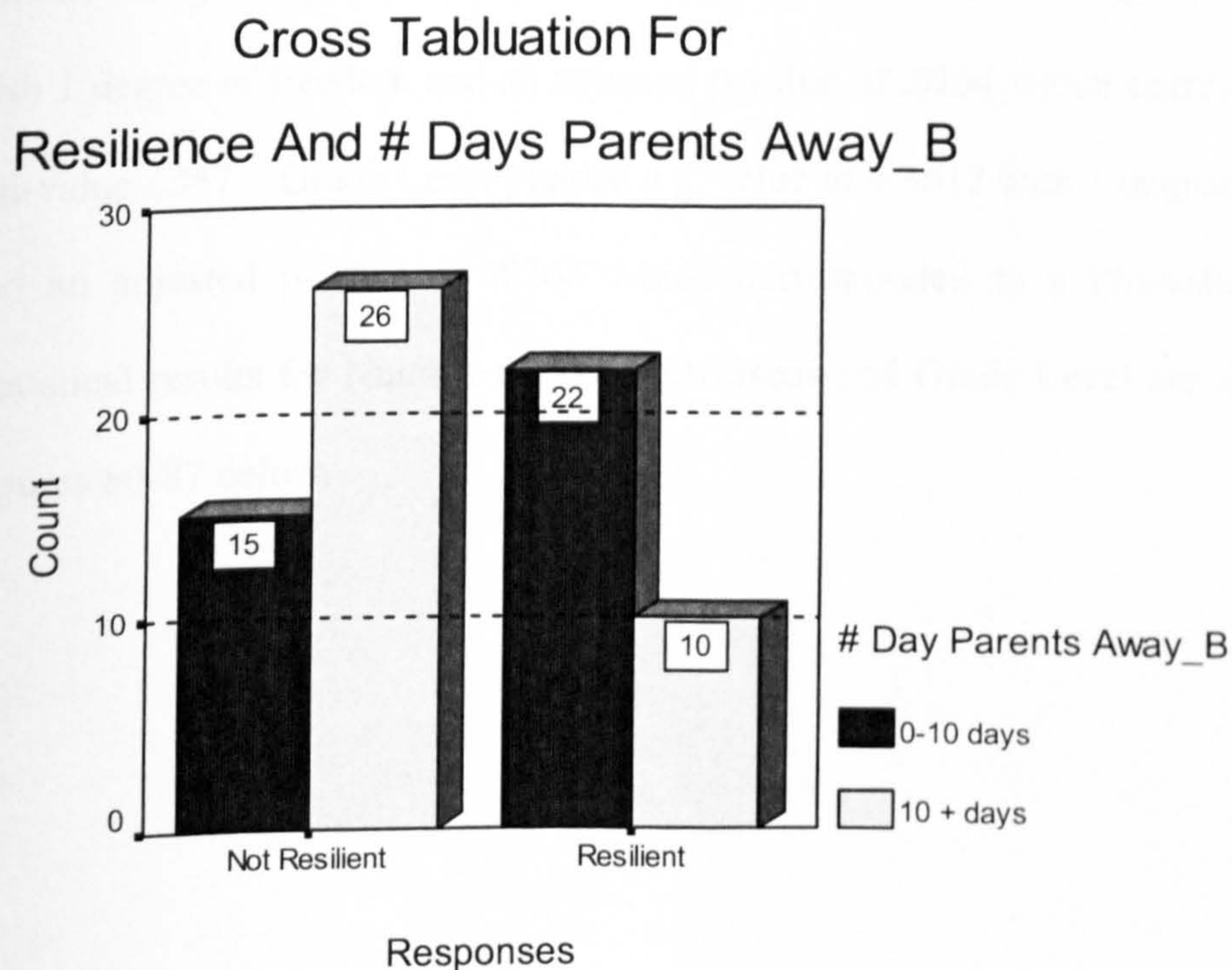
Figure 78: Strength of Relationship Figure for the Association between Resilience and Parents Away\_B

Symmetric Measures			
		Value	Approx. Sig.
2 x 2 Table	Phi	.319	.006
N of Valid Cases		73	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Figure 79: Graphical Representation of Interaction Effects between Resilience and Parents Away\_B



The fourth most significant and important group of variables in the decision tree model for resilience at 2-levels are the number of years a participant had spent overseas (Number of Years Overseas) and participants' grade (Grade Level). Displaying an interaction effect, the Number of Years Overseas turned out to be the



next most significant and important variable, but only within the Time Parents Away\_A category, which consists of parents who are away from home 3-5 days & 10+ days a month. On the other hand, within the Time Parents Away\_B category, which consists of parents who are away from home 0-2 days & 6-10 days a month, the participants' grade (Grade Level) was again the next most significant and important variable which within this subset could now be broken down as significant for two groups: 5 and 8. Number of Years Overseas is statistically equivalent to Grade Level within their stated Time Parents Away groups so that both Number of Years Overseas and Grade Level are equally important within their respective Time Parents Away categories. Number of Year Overseas yielded a  $\chi^2$  value of 9.0426 with 1 degree of freedom and an adjusted p-value of .0264 which corresponded to a Phi-value -.357. Grade Level yielded a  $\chi^2$  value of 4.3612 with 1 degree of freedom and an adjusted p-value of .0368 which corresponded to a Phi-value of -.343. Statistical results for Number of Years Overseas and Grade Level are illustrated in Figures 80-87 below.

Figure 80: Crosstabulation Results for Levels of Resilience and Number of Years Overseas

Resilience * Number of Years Overseas Crosstabulation					
			Number of Years Overseas		Total
			1-2, 7-14 years	3-6 years	
Resilience	Not Resilient	Count	5	9	14
		Expected Count	9.7	4.3	14.0
		% within Resilience	35.7%	64.3%	100.0%
		% of Total	7.0%	12.7%	19.7%
	Resilient	Count	44	13	57
		Expected Count	39.3	17.7	57.0
		% within Resilience	77.2%	22.8%	100.0%
		% of Total	62.0%	18.3%	80.3%
Total	Count		49	22	71
	Expected Count		49.0	22.0	71.0
	% within Resilience		69.0%	31.0%	100.0%
	% of Total		69.0%	31.0%	100.0%

Figure 81: Chi-Square Results for Interaction Effects between Resilience and Number of Years Overseas

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.043 <sup>b</sup>	1	.003
Continuity Correction <sup>a</sup>	7.207	1	.007
Likelihood Ratio	8.437	1	.004
Linear-by-Linear Association	8.915	1	.003
N of Valid Cases	71		

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.34.



Figure 82: Strength of Relationship Figure for the Association between Resilience and Number of Years Overseas

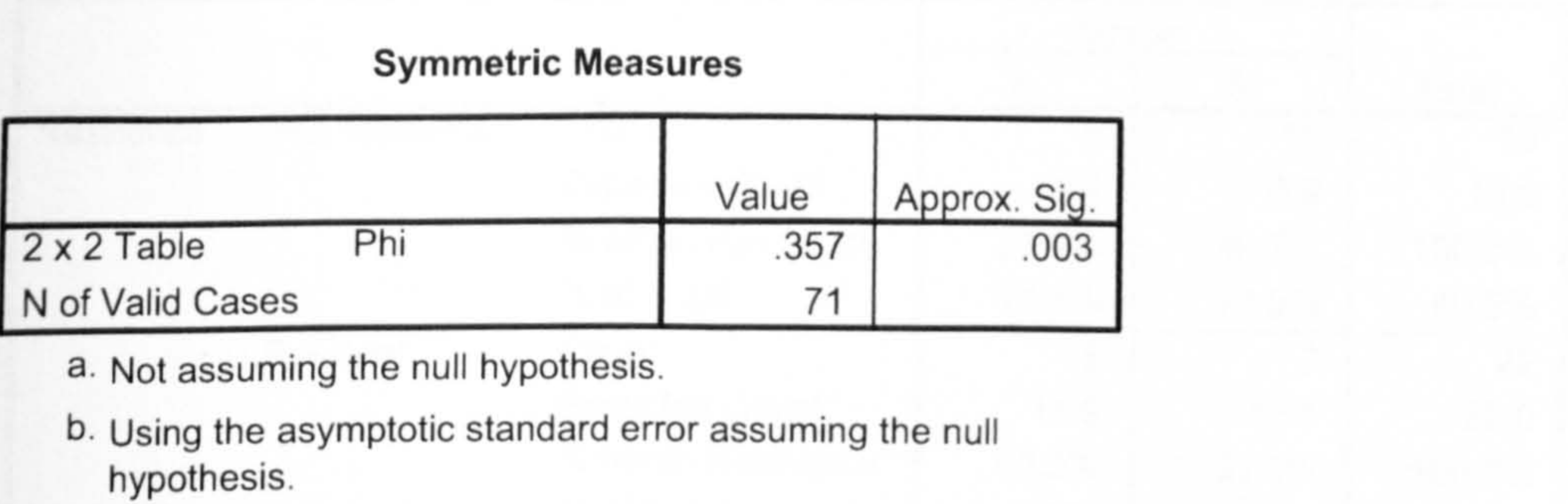


Figure 83: Graphical Representation of Interaction Effects between Resilience and Number of Years Overseas

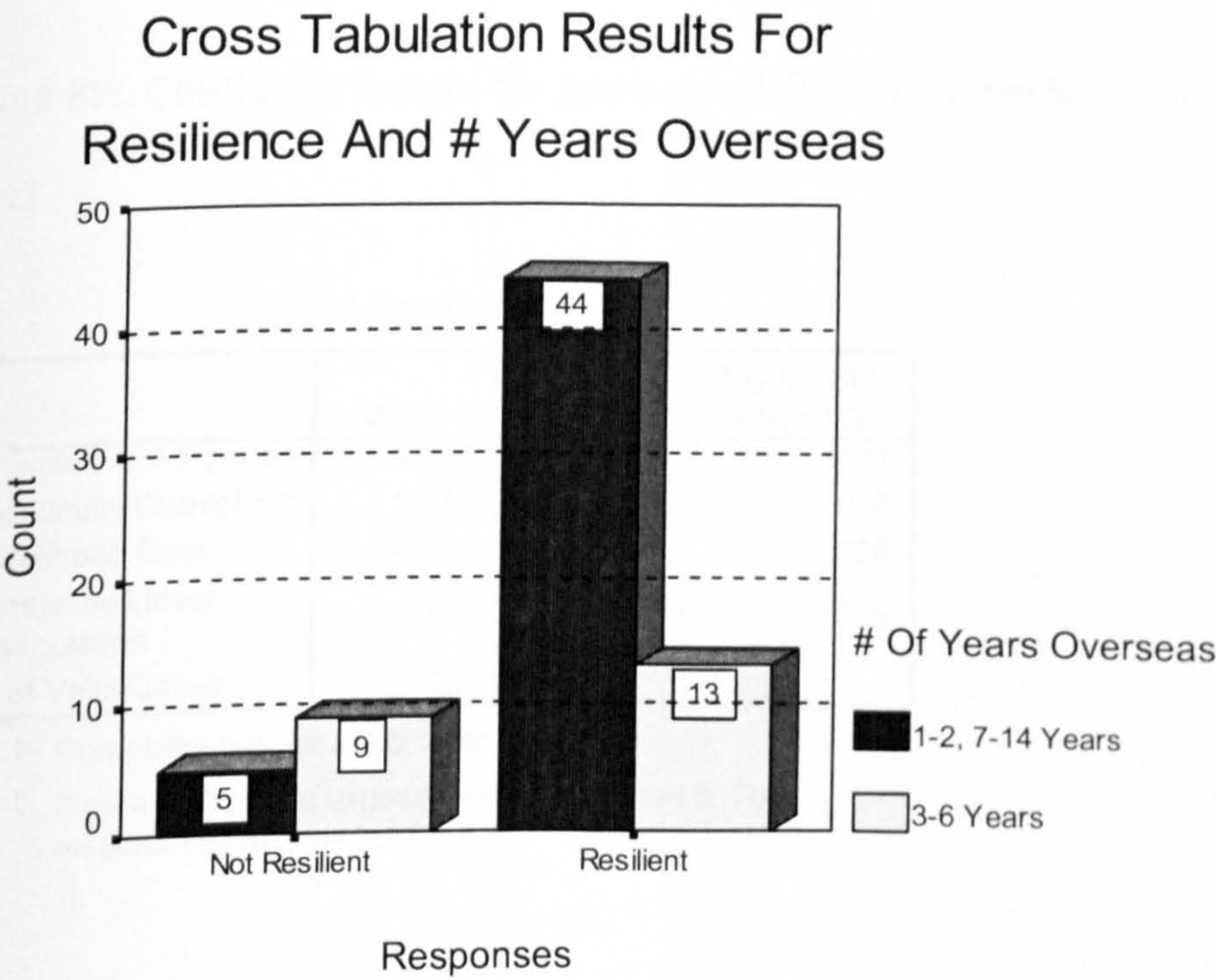


Figure 84: Crosstabulation Results for Levels of Resilience and Grade Level

Resilience * Grade Crosstabulation					
			Grade		Total
			8	5	
Resilience	Not Resilient	Count	5	10	15
		Expected Count	8.1	6.9	15.0
		% within Resilience	33.3%	66.7%	100.0%
		% of Total	13.5%	27.0%	40.5%
	Resilient	Count	15	7	22
		Expected Count	11.9	10.1	22.0
		% within Resilience	68.2%	31.8%	100.0%
		% of Total	40.5%	18.9%	59.5%
Total	Count		20	17	37
	Expected Count		20.0	17.0	37.0
	% within Resilience		54.1%	45.9%	100.0%
	% of Total		54.1%	45.9%	100.0%

Figure 85: Chi-Square Results for Interaction Effects between Resilience and Grade Level

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.361 <sup>b</sup>	1	.037
Continuity Correction <sup>a</sup>	3.071	1	.080
Likelihood Ratio	4.432	1	.035
Linear-by-Linear Association	4.243	1	.039
N of Valid Cases	37		

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.89.

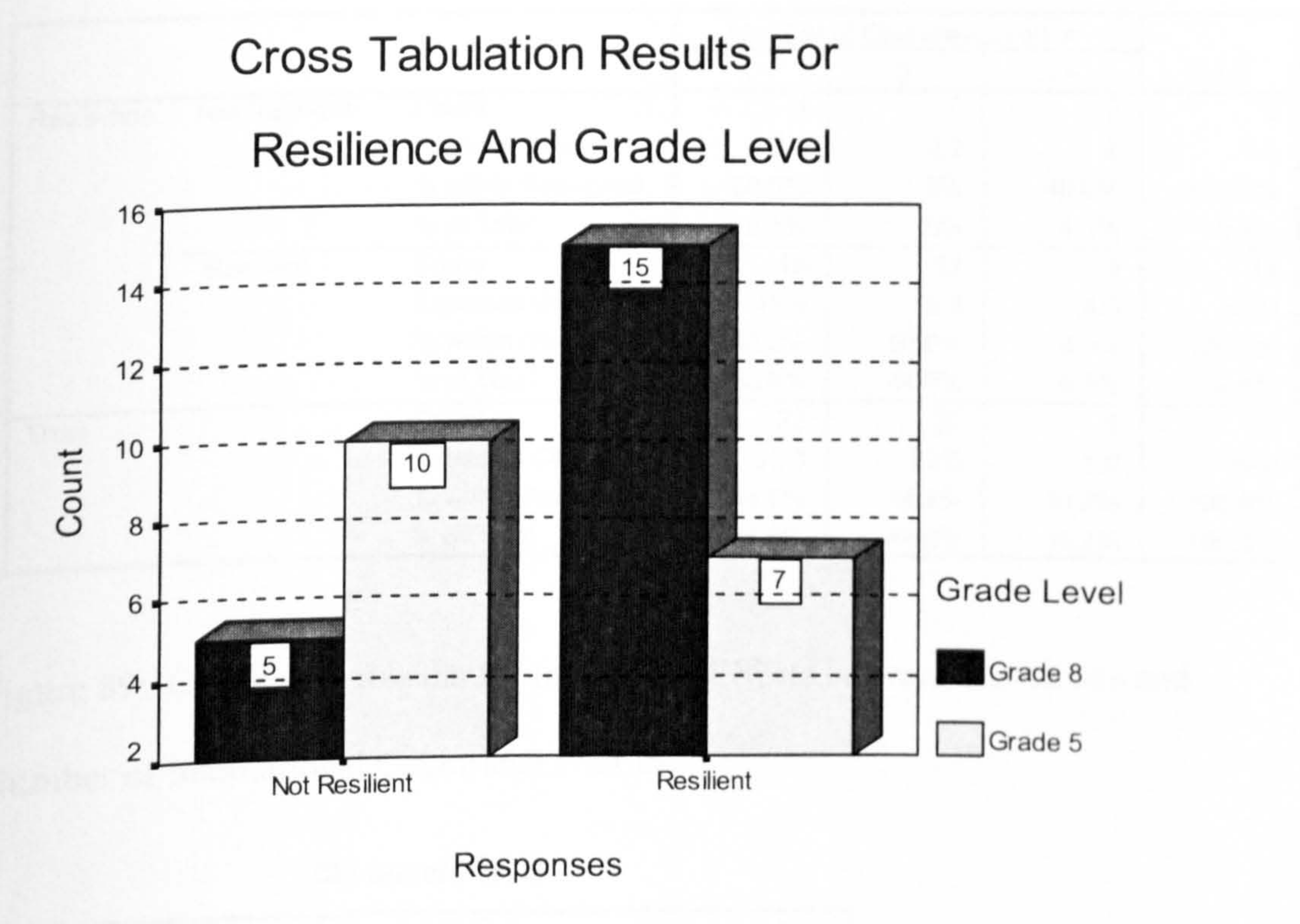


Figure 86: Strength of Relationship Figure for the Association between Resilience and Grade Level

Symmetric Measures		
	Value	Approx. Sig.
2 x 2 Table      Phi	.343	.037
N of Valid Cases	37	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 87: Graphical Representation of Interaction Effects between Resilience and Grade Level



The fifth and final level in the decision tree model for resilience at 2-levels applies to students in grades 5 & 8, who have 0, 1, or 3-6 siblings, whose parents are away from home on average 3-5 days or 10+ days a month, *and* who have lived overseas for 1-2, 7-9, or 10-14 years. The next most significant and important variable for this subset of students is the number of countries they have lived in



(Number of Countries Lived In). Respondents in this group are those that have lived in at any number of international locations versus those who have not lived in any other international location. Number of Countries Lived In yielded a  $\chi^2$  value of 7.6274 with 2 degrees of freedom and an adjusted p-value of .0221 which corresponded to a Phi-value of .395. See Figures 88- 91 below for the complete set of statistics for this variable.

Figure 88: Crosstabulation Results For Levels of Resilience and Number of International Countries Lived In

Resilience * Number of Countries Lived In Crosstabulation						
			Number of Countries Lived In			Total
			1	2	3 +	
Resilience	Not Resilient	Count	3	0	2	5
		Expected Count	2.2	2.2	.5	5.0
		% within Resilience	60.0%	.0%	40.0%	100.0%
		% of Total	6.1%	.0%	4.1%	10.2%
	Resilient	Count	19	22	3	44
		Expected Count	19.8	19.8	4.5	44.0
		% within Resilience	43.2%	50.0%	6.8%	100.0%
		% of Total	38.8%	44.9%	6.1%	89.8%
Total	Count		22	22	5	49
	Expected Count		22.0	22.0	5.0	49.0
	% within Resilience		44.9%	44.9%	10.2%	100.0%
	% of Total		44.9%	44.9%	10.2%	100.0%

Figure 89: Chi-Square Results for Interaction Effects between Resilience and Number of International Countries Lived In

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.627 <sup>a</sup>	2	.022
Likelihood Ratio	8.040	2	.018
Linear-by-Linear Association	.273	1	.601
N of Valid Cases	49		

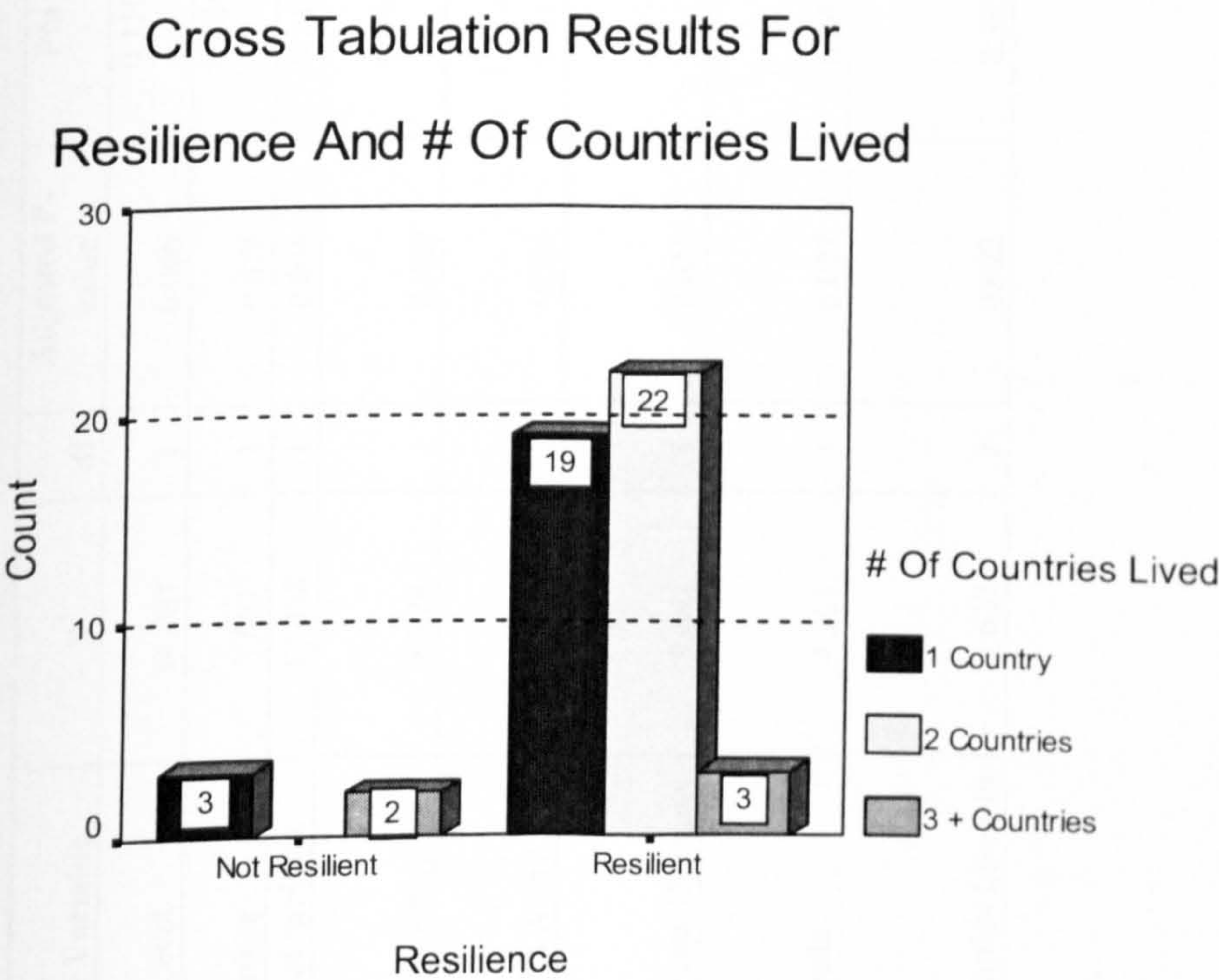
a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .51.

Figure 90: Strength of Relationship Figure for the Association between Resilience and Number of International Countries Lived In

Symmetric Measures		
		Value
2 x 2 Table	Phi	.395
N of Valid Cases		49

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Figure 91: Graphical Representation of Interaction Effects between Resilience and Number of International Countries Lived In



A summary Figure of significant and important variables just detailed for resilience at 2-levels is presented in the Figure below.



Figure 92: Summary Figure of Significant and Important Variables for Resilience at 2-Levels

Levels	Independent Variable	X <sup>2</sup>	df	Adjusted P-value	Phi	Condition
I	Grade Level	14.061	1	0.006	0.150	Across All Participants (n=626)
II	A - Divorce	3.081	1	0.079	0.086	Across All Participants (n=415) Within Grade Levels 3, 4, 6, 7
	B – Number of Siblings	12.458	1	0.004	0.243	Across All Participants (n=211) Within Grade Levels 5, 8
III	A-Time Parents Away A	8.924	1	0.028	0.254	Across All Participants (n=138) Within (2) Grade Levels 5, 8 AND Number of Siblings (1) 0, 1, 3-6
	B-Time Parents Away B	7.439	1	0.064	0.319	Across All Participants (n=73) Within (2) Grade Levels 5, 8 AND Number of Siblings (2) 2
	A-Number of Years Overseas	9.043	1	0.026	0.357	Across All Participants (n=71) Within (2) Grade Levels 5, 8 AND Number of Siblings (1) 0, 1, 3-6 AND Number of Years Overseas=1-2, 7-9, 10-14
IV	B-Grade	4.361	1	0.037	0.343	Across All Participants (n=71) Within (2) Grade Levels 5, 8 AND Number of Siblings (1) 0, 1, 3-6 AND Grade Level=5, 8
V	Number of Countries Lived In	7.627	2	0.022	0.395	Across All Participants (n=71) Within (2) Grade Levels 5, 8 AND Number of Siblings (1) 0, 1, 3-6 AND Number of Years Overseas=1-2, 7-9, 10-14 AND Number of Countries Lived In=1-3+

### Chapter Summary

The purpose of Chapter 4 was to provide the results of the CPRC-B that were administered to a sample of TCKs attending SAS. A total of 626 participants took part in the study. Using the Exhaustive CHAID statistical analysis, the researcher was able to examine relationships between various demographic variables and levels of resilience among the TCK sample.

Results from the decision tree model of resilience at 3-levels found that Respondent's Age was the most significant and important variable associated with levels of resilience in the sample population of TCKs who participated in this study. The time parents spent away from home each month (Time Parents Away) and their marital status (Parent's Divorce) were the second most significant and important variables in determining resilience at 3-levels. The number of years the TCK spent overseas (Number of Years Overseas) was the third most significant and important variable, followed once again by the respondent's age (Respondent's Age) and finally the number of countries each participant had lived in (Number of Countries Lived In).

Results from the decision tree model of resilience at 2-levels found the grade level (Grade Level) of participants was the most significant and important variable associated with resilience levels in the sample population of TCKs. Marital status of parents (Parent's Divorce) and the number of siblings that TCKs had (Number of Siblings) showed up as the second most significant and important variable, followed by the time parents spent away from home each month (Time Parents Away). The number of years participants spent overseas (Number of Years Overseas) and their



grade levels (Grade Level) were the forth most significant and important variables in determining resilience at 2-levels in the sample population. The number of countries each participant has lived in (Number of Countries Lived In) showed up as the last most significant and important variable in the decision tree model for resilience at 2-levels.

## CHAPTER 5-DISCUSSION

*"Something we were withholding made us weak,  
until we found it was ourselves".*

-Robert Frost.

### Introduction

Chapter 5 is divided into three sections. In section 1, a summary of the study is provided, which serves as a context for the discussion of the results and data analysis. This section includes a brief statement of the purpose of the study and a description of the sample population and statistical methods employed. In section 2, an interpretation of research findings are reported. Section 3 discusses the implications of the findings that include: strengths and limitations of the study, as well as recommendations for future research.

### Purpose

The purpose of this study was to examine the influence of cross cultural experiences upon levels of resilience of children attending SAS, an international school in Singapore. These children, commonly referred to TCKs, are characterized as having a high degree of mobility and numerous transcultural experiences. As TCK populations continue to increase, primarily due to globalization, the need for a greater understanding and awareness of variables that may impact levels of resilience among this population is needed. The caveat to resilience research appears to be that even though resilient children and adolescents have impressive social competence, their ability to cope effectively with severe stressors does not



preclude them having emotional troubles such as feelings of depression and anxiety (Luthar & Zigler, 1991).

To measure levels of resilience, a revised format of the Child's Perception of Resilience Checklist was re-written by the researcher (CPRC-B) and administered to a sample of TCKs attending SAS. Demographics information was also collected which allowed for analysis of variables that might influence levels of resilience. A total of 626 students participated in the study. Using the Exhaustive CHAID statistical procedure, significant and important independent variables were identified that determined levels of resilience among the sample population of TCKs.

### Summary of the Study

*Research Question 1:* What are the levels of resilience in TCKs, ages 7-15, attending an international school in Singapore as measured by the CPRC-B?

As no previous research related to resilience among TCKs had been undertaken, this first research question sought to determine what the levels of resilience were among this population. Statistics from the Exhaustive CHAID analysis for resilience at 3-levels indicated that due to chance and chance alone, none resilient student represented 50.3% (n=315) of the sample, 23% (n=144) represented resilient students, and 26.7% (n=167) represented highly resilient students. Statistics from the Exhaustive CHAID analysis for resilience at 2-levels indicated similar percentages for resilient versus none resilient students. In this model, 50.3% (n=315) represented none resilient students while 49.7% (n=311) represented resilient students, again due to chance and chance alone. Since there are no other studies that can be used for comparison purposes, it is not possible to

conclude how these numbers compare to other populations of TCKs. In order to conclude that the TCKs who participated in this study demonstrated significantly different levels of resilience than a norm group, a comparison of central tendencies and score dispersions of the two samples is required. At this time, this study serves to offer a baseline which can be used for comparison purposes with students attending other international schools.

*Research Question 2:* What are the relationships among levels of resilience and the background factors of TCKs, if any?

The Exhaustive CHAID analysis for resilience at 3-levels indicated that Respondent's Age, Time Parents Away, Parents Divorce, Number of Year Overseas, Respondent's Age again, and Number of Countries Lived In were the most significant and important variables in predicting levels of resilience among the sample population of TCKs. Statistical results from this decision tree model indicated that the age of students (Respondent's Age) was the most significant and important variable in determining levels of resilience when using the 3-level criteria. For students aged 10, 11, 14-15, the marital status of their parents (Parent's Divorce) was the second most significant and important variable in determining levels of resilience. For students aged 9, 12, & 13, the time parents spent away from home each month (Time Parents Away) followed by the number of years overseas (Number of Years Overseas) were the next most significant and important variables. From this sub-group of students, it was found that levels of resilience of those who had spent 7-9 & 12 years overseas was also affected by the number of countries they has lived in (Number of Countries Lived In).



The Exhaustive CHAID analysis for resilience at 2-levels indicated that Grade Level, Parents Divorce, Number of Siblings, Time Parents Away, Number of Years Overseas, Grade Level again, and Number of Countries Lived In were the most significant and important variables in predicting levels of resilience among the sample population of TCKs. Statistical results from this decision tree model indicated that students' grade level (Grade Level) was the most significant and important variable in determining levels of resilience when using the 2-level criteria. For students in grades 3, 4, 6 & 7, the marital status of their parents (Parent's Divorce) was the second most significant and important variable in determining levels of resilience. For students in grades 5 & 8, number of siblings (Number of Siblings) and time parents spent away from home each month (Time Parents Away) were found to be the next most significant and important variables. Levels of resilience in students in grades 5 & 8, with 0, 1, & 3-6 siblings, and whose parents travel 0-10+ days a month, was also found to be affected by the number of years spent overseas (Number of Years Overseas) and the number of countries lived in (Number of Countries Lived In).

*Research Question 3:* What are the levels of resilience and TCK background factors which can be used to predict adjustment?

This study was able to suggest a number of answers to this question. It has already been discussed that the single most significant and important variable related to a student's level of resilience is their age (according to the resilience at 3-levels model). Similarly, it was explained that the single most significant and important variable related to a student being resilient or not was their grade level (Grade

Level). Since it is hardly ever the case that these variables take place in isolation, it is also helpful to understand the combination of factors that contribute to levels of resilience in the sample population. Figure 93-97 below provides answers to this query.

### Resilience at 3-Level Criterion Order

Figure 93 below summarizes the resilience at 3-levels and the possible paths which Highly Resilient students might experience. Special attention should be given to the highlighted paths.



Figure 93: Resilience At 3-levels: Possible Paths Which Highly Resilient Students Experience.

3 Level Criterion Order: Highly Resilient Students

N= 167

Group	1	2	3	4	5	Final n In Path	% of Total
A	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 3-5 Days 13.2% (n = 22) Node 3	-	-	-	22	13.2%
B	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 6-10, 10+ Days 26.3% (n = 44) Node 4	-	-	-	44	26.3%
C	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 0-2 Days 4.8% (n= 8) Node 5	# of Years Overseas 3-9 2.4% (n = 4) Node 8	Age 7-9, 12 1.2% (n = 2) Node 11	# Countries Lived In 1 0.6% (n = 1) Node 13	1	0.6%
D	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 0-2 Days 4.8% (n= 8) Node 5	# of Years Overseas 3-9 2.4% (n = 4) Node 8	Age 7-9, 12 1.2% (n = 2) Node 11	# Countries Lived In 2+ 0.6% (n = 1) Node 14	1	0.6%
E	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 0-2 Days 4.8% (n= 8) Node 5	# of Years Overseas 3-9 2.4% (n = 4) Node 8	Age 13 1.2% (n = 2)	-	2	1.2%
F	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 0-2 Days 4.8% (n= 8) Node 5	# of Years Overseas 10-14 1.8% (n = 3) Node 9	-	-	3	1.8%
G	Age 7-9,12,13 44.3% (n = 74) Node 1	Time Parents Are Away 0-2 Days 4.8% (n= 8) Node 5	# of Years Overseas 1-2 0.6% (n = 1) Node 10	-	-	1	0.6%
H	Age 10,11,14-15 55.7% (n = 93) Node 2	Parents Mamed 55.7% (n = 93) Node 6	-	-	-	93	55.7%
I	Age 10,11,14-15 55.7% (n = 93) Node 2	Parents Divorced 0% (n = 0) Node 7	-	-	-	0	0.0%
Grand Total						167	100%

As Highly Resilient students are concerned, there is a 55.7% chance that students are 10, 11, 14, or 15 years old with married parents. With 93 out of 167 students, this is the single highest incident rate among the group of Highly Resilient students. Using this observed data for predictive purposes, it is reasonable to infer that there would be a 55.7% chance that another similar group of Highly Resilient students from a similar population would be 10, 11, 14, or 15 years old with married parents.

The group of Highly Resilient students who are at the other end of the spectrum is Group I from Figure 93 above. There was not a single Highly Resilient student representative who was age 10, 11, 14 or 15 with divorced parents. This infers that in this particular age group of Highly Resilient students, marital status of parents was a significant predictor.

Figure 94 below summarizes the resilience at 3-levels and the possible paths which Resilient students might experience. Special attention should be given to the highlighted paths.



Figure 94: Resilience At 3-levels: Possible Paths Which Resilient Students Might Experience.

3 Level Criterion Order: Resilient Students

N = 144

Group	1	2	3	4	5	Final n in Path	% of Total
A	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 3-5 Days 16.7% (n = 24) Node 3	-	-	-	24	16.7%
B	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 6-10, 10+ Days 29.2% (n = 42) Node 4	-	-	-	42	29.2%
C	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 0-2 Days 17.4% (n = 25) Node 5	# of Years Overseas 3-9 10.4% (n = 15) Node 8	Age 7-9, 12 7.6% (n = 11) Node 11	# Countries Lived In 1 5.6% (n = 8) Node 13	8	5.6%
D	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 0-2 Days 17.4% (n = 25) Node 5	# of Years Overseas 3-9 10.4% (n = 15) Node 8	Age 7-9, 12 7.6% (n = 11) Node 11	# Countries Lived In 2+ 1.4% (n = 2) Node 14 (1 missing value)	2	1.4%
E	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 0-2 Days 17.4% (n = 25) Node 5	# of Years Overseas 3-9 10.4% (n = 15) Node 8	Age 13 2.8% (n = 4) Node 12	-	4	2.8%
F	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 0-2 Days 17.4% (n = 25) Node 5	# of Years Overseas 10-14 0% (n = 0) Node 9	-	-	0	0.0%
G	Age 7-9,12,13 63.2% (n = 91) Node 1	Time Parents Are Away 0-2 Days 17.4% (n = 25) Node 5	# of Years Overseas 1-2 6.9% (n = 10) Node 10	-	-	10	6.9%
H	Age 10,11,14-15 36.8% (n = 53) Node 2	Parents Married 35.4% (n = 51) Node 6	-	-	-	51	35.4%
I	Age 10,11,14-15 36.8% (n = 53) Node 2	Parents Divorced 1.4% (n = 2) Node 7	-	-	-	2	1.4%
Grand Total						99%	

In so far as to Resilient students are concerned, there is a 35.4% chance that students are 10, 11, 14, or 15 years old with married parents. With 57 out of 144 students, this is the single highest incident rate among the group of Resilient students. Using this observed data for predictive purposes, it is reasonable to infer that there would be a 35.4% chance that another similar group of Resilient students from a similar population would be 10, 11, 14, or 15 years old with married parents.

The group of Resilient students who are at the other end of the spectrum is Group F from Figure 94 above. Once again, there was not a single Resilient student representative who was age 7-9, 12, or 13 whose parents are away from home on average 0-2 days a month, and who have been overseas for 10-14 years.

Figure 95 below summarizes the resilience at 3-levels and the possible paths which Non- Resilient students might experience. Special attention should be given to the highlighted paths.



Figure 95: Resilience At 3-levels: Possible Paths Which Non-Resilient Students Might Experience.

3 Level Criterion Order: Non-Resilient Students

N= 315

Group	1	2	3	4	5	Final n In Path	% of Total
A	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 3-5 Days 9.5% (n = 30) Node 3	-	-	-	30	9.5%
B	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 6-10, 10+ Days 36.5% (n = 115) Node 4	-	-	-	115	36.5%
C	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 0-2 Days 17.5% (n = 55) Node 5	# of Years Overseas 3-9 13.7% (n = 43) Node 8	Age 7-9, 12 12.7% (n = 40) Node 11	# Countries Lived In 1 4.4% (n = 14) Node 13	14	4.4%
D	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 0-2 Days 17.5% (n = 55) Node 5	# of Years Overseas 3-9 13.7% (n = 43) Node 8	Age 7-9, 12 12.7% (n = 40) Node 11	# Countries Lived In 2+ 8.3% (n = 26) Node 14	26	8.3%
E	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 0-2 Days 17.5% (n = 55) Node 5	# of Years Overseas 3-9 13.7% (n = 43) Node 8	Age 13 1.0% (n = 3)	-	3	1.0%
F	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 0-2 Days 17.5% (n = 55) Node 5	# of Years Overseas 10-14 3.5% (n = 11) Node 9	-	-	11	3.5%
G	Age 7-9,12,13 63.5% (n = 200) Node 1	Time Parents Away 0-2 Days 17.5% (n = 55) Node 5	# of Years Overseas 1-2 0.3% (n = 1) Node 10	-	-	1	0.3%
H	Age 10,11,14-15 36.5% (n = 115) Node 2	Parents Married 34.6% (n = 109) Node 6	-	-	-	109	34.6%
I	Age 10,11,14-15 36.5% (n = 115) Node 2	Parents Divorced 1.9% (n = 6) Node 7	-	-	-	6	1.9%
Grand Total						315	100%

In so far as Non-Resilient students are concerned, there is a 36.5% chance that students are 7-9, 12, or 13 years old whose parents are away from home on average 6-10 or 10+ days a month. With 115 out of 315 students, this is the single highest incident rate among the group of Non-Resilient students. Using this observed data for predictive purposes, it is reasonable to infer that there would be a 36.4% chance that another similar group of Non-Resilient students from a similar population would be 7-9, 12, or 13 years old whose parents are away from home on average 6-10 or 10+ days a month.

The group of Non-Resilient students who are at the other end of the spectrum is Group G from Figure 95 above. There was only one (1) Non-Resilient student representative (0.3%) who fell within the age groups 7-9, 12, or 13, whose parents are away from home on average 0-2 days a month, and who have been overseas for 1-2 years.

#### Resilience at 2-Level Criterion Order

Figure 96 below summarizes the resilience at 2-levels and the possible paths which Resilient students might experience. Special attention should be given to the highlighted paths.



Figure 96: Resilience at 2-levels: Possible paths which Resilient students might experience.

2 Level Criterion Order: Resilient Students

N = 311

Group	1	2	3	4	5	Final n in Path	% of Total
A	Grade 3,4,6,7 59.2% (n =184) Node 1	Parents Married 58.2% (n = 181) Node 3	-	-	-	181	58.2%
B	Grade 3,4,6,7 59.2% (n =184) Node 1	Parents Divorced 1.0% (n=3) Node 4	-	-	-	3	1.0%
C	Grade 5,8 40.8% (n =127) Node 2	# of Siblings 0,1,3-6 30.5% (n = 95) Node 5	Time Parents Away 3-5, 10+ days 18.3% (n = 57) Node 7	# of Yrs Overseas 1-2,7-14 14.1% (n = 44) Node 11	# Countries Lived In 1 6.1% (n = 19) Node 15	19	6.1%
D	Grade 5,8 40.8% (n =127) Node 2	# of Siblings 0,1,3-6 30.5% (n = 95) Node 5	Time Parents Away 3-5, 10+ days 18.3% (n = 57) Node 7	# of Yrs Overseas 1-2,7-14 14.1% (n = 44) Node 11	# Countries Lived In 1 7.1% (n = 19) Node 16	22	7.1%
E	Grade 5,8 40.8% (n =127) Node 2	# of Siblings 0,1,3-6 30.5% (n = 95) Node 5	Time Parents Away 3-5, 10+ days 18.3% (n = 57) Node 7	# of Yrs Overseas 1-2,7-14 14.1% (n = 44) Node 11	# Countries Lived In 1 1.0% (n = 3) Node 17	3	1.0%
F	Grade 5,8 40.8% (n =127) Node 1	# of Siblings 0,1,3-6 30.5% (n = 95) Node 5	Time Parents Away 3-5, 10+ days 18.3% (n = 57) Node 7	# of Yrs Overseas 3-6 4.2% (n = 13) Node 12	-	13	4.2%
G	Grade 5,8 40.8% (n =127) Node 1	# of Siblings 0,1,3-6 30.5% (n = 95) Node 5	Time Parents Away 0-2, 6-10 days 12.2% (n = 38) Node 8	-	-	38	12.2%
H	Grade 5,8 40.8% (n =127) Node 1	# of Siblings 2 10.3% (n = 32) Node 6	Time Parents Away 0-10 days 7.0% (n = 22) Node 9	Grade 8 4.8% (n = 15) Node 13	-	15	4.8%
I	Grade 5,8 40.8% (n =127) Node 1	# of Siblings 2 10.3% (n = 32) Node 6	Time Parents Away 0-10 days 7.0% (n = 22) Node 9	Grade 5 2.3% (n = 7) Node 14	-	7	2.3%
J	Grade 5,8 40.8% (n =127) Node 1	# of Siblings 2 10.3% (n = 32) Node 6	Time Parents Away 10+ days 3.2% (n = 10) Node 10	-	-	10	3.2%
Grand Total							100%

In so far as Resilient students are concerned, there is a 58.2% chance that students are in grades 3, 4, 6 & 7 whose parents are married. With 181 out of 311 students, this is another example of a very high incident rate among the entire group. Using this observed data for predictive purposes, it is reasonable to infer that there would be a 58.2% chance that another similar group of Resilient students from a similar population would be in grades 3, 4, 6 & 7 with married parents.

There are two groups that represent the other end of the spectrum for this group of Resilient students. The first group is Group B from Figure 93 above. There were only three (3) Resilient student representatives (1.0%) who were in grades 3, 4, 6 & 7 and whose parents are divorced. This infers that for this particular grade group of Resilient students, the marital status of parents is the significant predictor. The second group of students in Group E from Figure 96 above. Once again, there were only three (3) Resilient student representatives (1.0%) in this group. These students were in grades 5 & 8, with 0, 1, 3-6 siblings, whose parents are away from home on average 3-6, or 10+ days a month, who have been overseas for 1-2, or 7-14 years, and who have lived in 1 international location.

Figure 97 below summarizes the resilience at 2-levels and the possible paths which Non-Resilient students might experience. Special attention should be given to the highlighted paths.





In so far as Non-Resilient students are concerned, there is a 69.8% chance that students are in grades 3, 4, 6 or 7 with married parents. With 220 out of 315 students, this is the single highest incident rate among the group of Non-Resilient students. Using this observed data for predictive purposes, it is reasonable to infer that there would be a 69.8% chance that another similar group of Non-Resilient students from a similar population would be in grades 3, 4, 6 or 7 with married parents.

The group of Non-Resilient students who are at the other end of the spectrum is Group D from Figure 97 above. There was not a single Non-Resilient student representative who was in grade 5 or 8, with 0, 1, 3-6 siblings, whose parents were away on average 3-5, or 10+ days a month, who have been overseas for 1-2 or 7-14 years, and who has lived in 2 international locations.

### **Comparison of Literature Review Findings with Statistical Findings**

#### **Respondents' Age**

There is sufficient statistical evidence from the 3-level model to infer that age is the single most significant and important variable related to a student's level of resilience. Since there is nothing in the literature to use for comparison purposes, this can be considered a new finding and unique to this study. Additional research in this area would be valuable in gaining a better understanding of this finding.

#### **Respondents' Grade**

There is sufficient statistical evidence from the resilience at 2-level model to infer that grade was the single most significant and important variable related to a student's level of resilience. Once again, since there is nothing in the literature to



use for comparison purposes, this can be considered another new finding unique to this study. Additional research in this area would be valuable in gaining a better understanding of this finding.

### Gender

There is sufficient statistical evidence from this study to infer that gender is not a significant or important variable related to levels of resilience among the sample population. This finding is in conflict with the findings from the literature review (Chess, 1989; Gadzekka, 1994; Rutter, 1987; Rae-Grant Thomas, Offord, & Boyle, 1989, & Werner & Smith, 1982). One possible explanation for this finding might be that in international Third Culture settings, students rely less on gender as a criteria to differentiate themselves socially. The researcher's observation while working with these students validates this idea, but further research is required before this can be determined.

### Nationality

There is sufficient statistical evidence from this study to infer that the participant's nationality is not a significant or important variable related to levels of resilience among participants. Since there is nothing in the literature to use for comparison purposes, this can be considered a new finding unique to this study. A valuable contribution to future research would be to gather a more significant representation of participants from countries that were under-represented in this study.

Number of International Schools Attended

There is sufficient statistical evidence from this study to infer that the number of international schools a participant had attended is not a significant or important variable related to levels of resilience among the sample population. This is in conflict with the literature review which claims that the high mobility of TCKs and subsequent number of international schools they attend had the potential to either positively or negatively affect TCKs (Compas, Malcarne, & Fondacaro, 1998; Henderson & Milstein, 1996; Rutter, 1984; Ryan, 1989; Werlieb, Weigel, & Feldstein, 1987; & Werner, 1989; 1990). Additional research in this area would be valuable in gaining a better understanding of these differences.

Number of Siblings

There is sufficient statistical evidence from this study to infer that a participant's number of siblings is a significant and important variable related to levels of resilience. This is consistent with the literature review (Berlin & Davis, 1989; Reinherz et al, 1993; Rutter, 1971; & Sullivan & Wilsom, 1995).

Number of Countries Lived In

There is sufficient statistical evidence from this study to infer that the number of countries a participant has lived in is a significant and important variable related to levels of resilience in the sample population. One explanation for this finding could be that participants are able to transfer knowledge gained from one international experience to another. This is consistent with the literature review (Compas, Malcarne, & Fondacaro, 1988; Jackson & Sachdev, 2001; Pollock &



VanReken, 2001; Ryan, 1989; Wertlieb, Weigel, & Feldstein, 1987; Werner, 1989; 1990).

#### Number of Years Overseas

There is sufficient statistical evidence from this study to infer that the number of years spent overseas is both a significant and important variable related to levels of resilience among participants. This finding was also consistent with the literature review (Henderson & Milstein, 1996; Hess & Linderman, 2002; Jackson & Sachdev, 2001; Pollock & VanReken, 2001; Rutter, 1984; Werner, 1989; 1990).

#### Average Time Parents Away / Month

There is sufficient statistical evidence from this study to infer that the average time a participant's parents is away from home each month is both a significant and important variable related to levels of resilience. This finding is consistent with the literature review (Bachay & Cingel, 1999; Hoge, Andrews, & Leschied, 1996; Horn & Chen, 1998; Jackson & Sachdev, 2001; McCubbin, Needle, & Wilson, 1985; Mills, 1996; Neal & Erick-Horbury, 2001; Pollock and Van Reken, 2001; Rutter, 1971; 1971; Sullivan & Wilson, 1995; Werner & Smith, 1982; Wilson, Stelzer, Bergman, Kral, Inayatullah, & Elliot, 1995).

#### Parent's Marital Status

There is sufficient statistical evidence from this study to infer that a parent's marital status is both a significant and important variable related to levels of resilience in the sample population. Since the literature review in this area yielded conflicting results, it is not possible to determine whether this finding is in conformity or in conflict with findings from other studies (Compas, Malcarne, &

Fondacaro, 1988; Conger, Lorenz, Elder, Melby, Simons, & Conger, 1991; Hauser, 1999; Horn & Chen, 1998; Kammerman, 2000; McCubbin, Needle, & Wilson, 1985; McLanahan & Sanderfur, 1998; Raja, McGee & Stanton, 1992; Rutter, 1972; Ryan, 1989; Werner & Smith, 1982; Wertlieb, Weigel, & Feldstein, 1987; Wilson, Stelzer, Bergman, Kral, Inayatullah, & Elliot, 1995). This finding will be considered a new finding until further research is conducted. Figure 98 below provides a summary of the comparison findings from this study with those from the literature review.

Figure 98: Literature Review Findings and Study Findings Comparison Table

BACKGROUND FACTORS	IN CONFORMITY WITH LITERATURE	DIFFERENCE FROM LITERATURE	NEW FINDINGS
Age			Age was found to be significant and important in influencing participant's level of resilience at 3-levels.
Grade			Grade was found to be significant and important in influencing participant's level of resilience at 2-levels.
Gender		Gender was not found to be significant or important in influencing participant's level of resilience at 2 or 3-levels.	
Nationality			Nationality was not found to be significant or important in influencing participants' level of resilience at 2 or 3-levels.

Number of International Schools Attended		Number of International Schools Attended was not found to be significant or important in influencing participants' level of resilience at 2 or 3-levels.	
Number of Siblings	Number of Siblings was found to be significant and important in influencing participants' level of resilience at 2-levels.		
Number of Countries Lived In	Number of Countries Lived In was found to be significant and important in influencing participants' level of resilience at 2 and 3-levels.		
Number of Years Overseas	Number of Years Overseas was found to be significant and important in influencing participants' level of resilience at 2 and 3-levels.		
Number of Days Parents Away/Month	Number of Days Parents Away/Month was found to be significant and important in influencing participants' level of resilience at 2-levels.		
Parents' Marital Status			Parents' Marital Status was found to be significant and important in influencing participants' level of resilience at 2 and 3-levels.



### Strengths of the Study

The first strength of this study was the use of the Exhaustive CHAID analysis, which allowed for the detection of interaction effects between demographic variables and levels of resilience. The result of this methodological approach is a greater understanding and appreciation of the effect that various demographic variables, common among TCKs, have upon levels of resilience as measured by the CPRC-B.

Second, this study identified the most significant and important variables associated with various levels of resilience among the sample population of TCKs. The implications of these findings are of importance to those who provide educational and counseling services among this population, and can serve as a starting point in identifying students who may exhibit lower levels of resilience.

Findings from this study can also assist in the development of appropriate interventions for TCKs who suffer from low levels of resilience. The key to promoting resilience in TCKs is providing long-term, multisystemic support over time. Intervention can take place in the form of building supportive family and peer relationships, and developing a support team of professionals, neighbors, and community members for the child to “wrap-around” during high stress periods (Brown, in press). Providing a range of extracurricular after school activities can also aid in the development of a variety of interests, problem-solving skills, a sense of responsibility, perseverance, a positive attitude, and emotional and conflict resolution skills.

Finally, this is the first time a resilience inventory has been used with a Third Culture sample of students. The hope of this exploratory study is to provide a

baseline set of data that can be used for comparison with other TCK populations around the world.

### Limitations of Study

One of the many consequences of globalization is the increase in the number of international schools and TCKs around the world. From a Kibbutz in Israel, to a farm in China, a village in Belize, or a suburb in the U.S., TCKs can be found just about anywhere in the world. The question about how much of their individual experiences they share in common with each other is still under debate. A substantial amount of TCK literature alleges that TCK experiences are similar enough that they can be generalized across the board. As a result, studies on TCKs (most of which have taken place in a single location) have been used as guidelines when examining TCKs in others parts of the world. It is the researcher's belief working with TCKs (and being one herself) that while TCK populations do share many similar experiences, it is not possible to make sweeping generalizations about TCKs everywhere in the absence of comparison studies. To assume that all TCK experiences are identical, it would mean that TCKs living in Israel and TCKs living in Belize arrive at the same conclusion about their Third Culture experiences. Arnett (2000) purported that while experiences from children living abroad seem similar at first, a closer look will reveal differences in how each individual responds to the cultures in which they are living.

Differences in TCK experiences may even exist between international schools within a country. For instance, many urban settings such as Singapore have a number of options for international families to choose for their child's education. Singapore alone has 17 international schools, each with its own signature identity.

The researcher's own observations in working at various international schools has found that students from each of these schools differ in their emotional, social and academic performances, and are influenced in different ways by their peers and teachers who each come to the table with their own unique and varied international experiences.

Furthermore, international schools typically experience a high degree of transience in both their student and faculty bodies. Every year, SAS experiences a 35% turnover rate in its student body. As SAS students leave and new students arrive, dynamics between students, teachers and parents change. For these reasons, it should be noted that findings from this study are limited to the TCK students attending SAS until which time further research is conducted and comparison studies are possible.

Additionally, while this study has shown sufficient statistical evidence to suggest that certain variables affect levels of resilience among the study's participants, some limitations should be noted.

Firstly, this study examined variables that may be attributed to levels of resilience in TCKs attending an international school. These variables (Respondent's Age, Grade, Gender, Number of Countries Lived In, Number of Years Overseas, Total Schools Attended, Time Parents Are Away, and Parents Divorce) may not have fully accounted for all of the variables that effect resilience levels among Third Culture populations. While the researcher made every effort to use the available literature when selecting these variables, there may be additional variables that more accurately reflect levels of resilience among Third Culture populations.



Secondly, the small sample sizes for some of the groups required that the data be collapsed to avoid generating results with high degrees of variability. The collapsed data included the variables: Respondent's Age, Number of Countries Lived In, Number of Countries, Number of Siblings, Number of Years Overseas, Nationality, and Number of Schools. As a result of using collapsed data, conclusions should be interpreted with caution as they may not accurately reflect these groups.

### **Recommendations for Future Research**

The first most valuable contribution to this research would be to conduct a predictive correlational study that would test the validity of the models developed in this study. Taking a random sample of individuals described in each path of the decision tree models (Figures 31 & 59) can help in verifying that the relationships discovered in the study are indeed useful for predictors across the population.

On the same note, because this is the first known study investigating levels of resilience among TCKs, further research opportunities are available to create equivalent samples for comparison. Until these samples are created, it will not be possible to ascertain whether or not levels of resilience in this sample are significantly higher or lower among other TCK populations. It is therefore recommended that further research exploring the relationships between levels of resilience and the independent variables used in this study be conducted with other TCK populations, attending other international schools around the world.

Another area for further research could address the issue of respondent's age and levels of resilience rates among TCKs. Sufficient statistical evidence from this

research found that the respondent's age was the most significant and important variable related to levels of resilience among the sample population of TCKs. It is recommended that specific emphasis be placed upon the TCK experience and how age may or may not influence levels of resilience among TCKs of various ages. In addition, it is recommended that a larger sample of participants be incorporated in the seven and fifteen year old sub-groups. A larger sample size would provide for a richer exploration of age differences and levels of resilience to determine if significant levels of resilience are noted with increasing age.

A fourth area of research could involve a further examination of the variables 'Time Parents Away', 'Number of Years Overseas', and 'Number of Countries Lived In' as they relate to levels of resilience; these variables showed up as significant and important in both of the decision tree models presented in this study. If additional research among Third Culture populations support these findings, it might help in the establishment of programs in international schools that provide educational and social support to TCKs and their families during their international sojourns.

Future research could also involve exploring other variables that might influence levels of resilience in TCKs such as: self-esteem, peer relationships, and family education and income levels, to name a few. These variables are widely cited in the resilience literature. It would be interesting to test what effect they had in the Third Culture experience and levels of resilience. The findings from this analysis could then be added to other possible explanatory variables that were not considered in this research.

While beyond the scope of this study, it would also be interesting conduct follow-up student interviews from which more detailed data might emerge to help explain some of the findings from this study.

Finally, another area for further research might involve the possible application of these findings to other areas of the TCK experiences. The results from this study could be used as a bridge to build upon the growing number of studies that are being conducting on this unique population. It has already been discussed how empirical research among Third Culture populations is sparse. Third Culture populations have a lot offer to those seeking to gain a richer understanding of variables affecting the lives of those living and working in international settings. Research among TCKs provide a context for understanding the role of cultural experiences upon other areas of interest including, multiculturalism, international relations, and human relations.

### Conclusion

Results from this study suggest that resilience is being promoted throughout at least part of the TCK sample studied here. However, there is still obvious room for giving greater attention to promoting resilience in these children. Higher levels of resilience will ultimately help these children face, overcome and even be strengthened by their unique Third Culture experiences. No one is spared from adversities and the paradigm of 'I Have', 'I Am', 'I Can' (Grotberg, 1995c) is a useful guide for learning how to promote resilience in these children.

It is the researcher's hope that this study also provided a "voice" for TCKs, with the aim of understanding the stressors they face, and the coping strategies that they use to make sense of their lives overseas. The life of a TCK involves a lot of



personal commitment and change. The current understanding of TCKs is much more developed than it was when the U.S. Foreign Service began sending citizens and families overseas. TCK assimilation can be traced to changes in globalization. The researcher's personal experience as a TCK started in the early 1980's when the only way to connect with friends and family from overseas was to tolerate the tedious and expensive process of operator assisted long distance calling and lengthy waits for mail to arrive from friends and family, and expensive international faxes. With the advent of the internet, the TCK experience suddenly changed. The internet now provides a medium from which TCKs are able to create a permanent "on-line home" with friends and family members across the globe. Many TCKs admit to relying on virtual communication to get news, keep up with their former host cultures, and remain in touch with others (Roman, 1999b). Creating a "online home" provides many TCKs with more of a sense of belonging within their host culture. Having said that, there is still a lot to be learned about TCKs and even more to be learned from them.

In order to help TCKs continue to learn about themselves, society needs to encourage continued research, as well as show respect for the experiences realized by these individuals. Ultimately, the importance of participating and understanding the discourse about TCK resilience is relevant to not only the SAS TCK, but also to TCKs in other international settings, ATCKs, expatriate parents raising TCKs, international educators teaching TCKs, and those in the sponsoring organizations responsible for determining expatriate family policies and implementing expatriate family services. This study does not claim to know all there is about how the TCK experience affects levels of resilience among adolescents who grow up overseas. It

does, however, hope to offer some sort of contribution to the growing body of literature about this fascinating population of students. As international schools in particular begin to support TCKs in their transitions and intercultural encounters, research documenting the impact of support for TCK resilience will inevitably proliferate. This will both heighten the understanding of factors that influence levels of resilience and aid in stimulating new ideas and alternative perspectives.

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## Appendix A: Intermediate School's Administrative Approval



INTERMEDIATE SCHOOL (GRADES 3 - 5)

Singapore American School  
40 Woodlands St 41  
Singapore 738547  
T. (65) 6363 3406  
F. (65) 6363 6441  
E. [sainfo@sas.edu.sg](mailto:sainfo@sas.edu.sg)  
Reg No: 196400340R

March 9, 2005

To Whom It May Concern:

I am writing to confirm that I have given approval for Vicki Rameker to use the students in the Intermediate School (Grades 3-5) for the purposes of her research. Vicki and I have met on several occasions to discuss her research about TCKs and resilience and will be taking appropriate measures to ensure that ethical guidelines are adhered to when using the students in her study. Please feel free to contact me should you have any questions with regards to the above.

Sincerely,

A handwritten signature in black ink that reads "Marian G. DeGroot".

Marian G. DeGroot  
Intermediate School Principal  
Singapore American School  
[mdegroot@sas.edu.sg](mailto:mdegroot@sas.edu.sg)  
(65) 6360-6210

## Appendix B: Middle Schools Administrative Approval



MIDDLE SCHOOL (GRADES 6 - 8)

Singapore American School  
40 Woodlands St 41  
Singapore 738547  
T. (65) 6363 3405  
F. (65) 6363 6442  
E. [sasinfo@sas.edu.sg](mailto:sasinfo@sas.edu.sg)  
Reg No: 196400340R

February 28, 2005

To Whom It May Concern,

Please be advised that I have met with Vicki Rameker on several occasions to review her plans for data collection and research related to her study of resilience in international students. She has my full support in this regard and access to collect data from within our school community.

Sincerely

  
Allan Bredy  
Middle School Principal



**Appendix C: Child's Perception of Resilience Checklist Version A****Child's Perception of Resilience Checklist Version A**

Please read each statement carefully and circle ONE of the options that you feel most closely fits you. There are no incorrect answers.

**1. I have someone in my life who is very important to me.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**2. I have someone in my life that I want to be like.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**3. I have someone in my life who loves me.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**4. I feel like I can share my problems with others.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**5. I am praised for doing things on my own.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**6. I am happy with who I am today.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**7. I am willing to try new things.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**8. I like to improve in what I am doing.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**9. I am happy with myself.**

AGREE    SOMEWHAT AGREE    SOMEWHAT DISAGREE    DISAGREE

**Appendix D: Child's Perception of Resilience Version B****Child's Perception of Resilience Checklist Version B**

Please read each statement carefully and circle ONE of the options that you feel most closely fits you. There are no incorrect answers.

**1. I have someone in my life who is very important to me.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**2. I have someone in my life that I want to be like.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**3. I have someone in my life who loves me.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**Appendix D Continued:****4. I feel like I can share my problems with others.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**5. I am praised for doing things on my own.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**6. I am happy with who I am today.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**7. I am willing to try new things.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE



**Appendix D Continued:****8. I like to improve in what I am doing.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

**9. I am happy with myself.**

- ☐ 1. AGREE
- ☐ 2. SOMEWHAT AGREE
- ☐ 3. NEUTRAL
- ☐ 4. SOMEWHAT DISAGREE
- ☐ 5. DISAGREE

Thank you for your participation. Please place your completed forms in the envelop at the front of classroom.

-Ms. Rameker

**Appendix E: Participant Demographics Form****Participant Demographics Form**

Please answer the following questions to the best of your knowledge.  
**Do not write your name on this form.**

1. Are you currently enrolled in ESL (English as a Second Language)?
2. Age in years (7, 8, 9, 10, 11 etc):
3. Birthday Date (Day, Month, Year):  
Day: \_\_\_\_\_ Month: \_\_\_\_\_ Year: \_\_\_\_\_
4. Gender (Male/Female):
5. Country of Passport (please list all passports if you have more than one starting with the passport you most often use for travel):
6. Total number of schools you have attended *including* SAS:
7. Total number of siblings you have (total number of brothers and sisters):
8. Total number of countries you have lived in the past three years (including Singapore):
9. Total number of years you have lived overseas (including Singapore):  
Years: \_\_\_\_\_ Months: \_\_\_\_\_
10. The average number of days in one month one or both of your parents are away from home (over night) because of work:
  - a. 2 or less days per month
  - b. About 3-5 days per month
  - c. About 6-10 days per month
  - d. 11 or more days per month
11. Are your parents divorced?

## Appendix F: Parent Consent Form

### Parent Consent for Child's Participation

Dear Parent or Guardian,

My name is Vicki Rameker. I am a teacher at the Singapore American School (SAS) and *am in the process of completing a doctorate degree in education. My study is interdisciplinary, drawing on literature about Third Culture Kids (TCKs) and the concept of resilience. Its intention is to measure levels of resilience in TCKs attending SAS. The area of TCKs has received an enormous amount of attention in the academic arena lately as educators, parents and politicians alike have begun to appreciate this growing community of students and their potential contributions to the world. The study is an attempt to add to the existing body of literature while also providing a better understanding and appreciation for the TCK experience.*

As part of the requirements for completing my degree, I would like to enlist your child's help.

What's involved? Students who participate will be asked to fill out a 9-item questionnaire, entitled the "Child's Perception of Resiliency Checklist". They will also complete a "Demographic Form" but **will NOT be asked to give any personal identifiable information.** I am particularly interested in learning the following: passport country of origin, gender, age, the number of international schools attended, and the number of year spent abroad. I have attached both forms here for your reference. If you feel like you may be able to provide more accurate demographic information about your child, please feel free to complete the Demographic Form on behalf of your child and return it with this consent form.

I have coordinated with the Administration to arrange suitable times to facilitate this activity so it does not adversely impact any student's academic schedules. I anticipate this activity taking about 10-15 minutes to complete.

There is a possibility that your child may be selected for independent interviews. The purpose of these interviews is to supplement the data collected by the Child's Perception of Resilience Checklist. Please note that students will be selected at random and not on the basis of their answers on the Checklist as no identifiable information will have been provided for the researcher to use in the selection process for student interviews.

Potential Benefits: The overall aim of this study is to measure levels of resilience on TCKs' attending SAS. This information can be used to:

1. Examine how our TCKs compare to those of teens in their home (passport of origin) countries who have not spent a significant portion of time living abroad.
2. Evaluate support programs that exist in the American community and at SAS.

Participation is Voluntary: This study has been approved by the SAS Administration, however I want to impress upon you that your child's participation is completely voluntary.

Questions? I would appreciate it if you would return this form whether or not you would agree to let your child participate so that I know the information has reached you. If you have any questions, please feel free to call me at 6363-3405 ext 476.

Thank you for your consideration.  
Vicki Rameker



**Appendix F Continued:**

**Please Check the appropriate boxes and send this form back to school with your child:**

       I have read and I understand the permission letter. I give consent for my child to participate in this study.

       I do not wish for my child to participate in this study.

Parent's Signature / Date \_\_\_\_\_

Parent's Name (please Print) \_\_\_\_\_

Child's Name \_\_\_\_\_

**Please have your child return this form to their respective Homeroom teachers.**

**Appendix G: Participant's Assent Form****Participant Assent Form**

My name is *Vicki Rameker* and I am a teacher here at SAS. I am also a graduate student at the University of Durham working on a research project that may involve you. Your parents have allowed me to talk to you about a project that I am working on as part of my graduate studies. The research area that I am interested in is adolescent resilience. I am going to spend a few minutes telling you about my project, and then I am going to ask you if you are interested in taking part in the study.

I am interested in finding out how resilient international students, like you, are giving your unique experiences living and going to school overseas. Also, I am interested in finding out what sorts of things might or might not affect levels of resilience among kids like you.

***What will happen to you if you decide to take part in the study?***

If you decide to take part in this study there are a few things I will ask you to do. First, I would like you to fill out a short form that asks about your school and family background. I will not be asking for your name on any of these forms so your answers will remain confidential. You will then read a series of statements and be asked to respond to the statements according to how you feel. There are only 9 statements, and no wrong answers. All total, it should take you about 10-15 minutes to complete this exercise.

***What are the benefits of this study?***

The information gathered will be useful in helping parents, teachers, and counselor's to know what sorts of things may or may not influence levels of resilience among kids such as yourself. With this information I believe we can come up with ways to better support kids like you as you transition from school to school and country to country.

***Will you have to answer all questions and who will know that you are in the study?***

No. If you do not wish to answer a particular question you do not have to. Also, at any point in the study if you decide you do not want to continue you are free to pull out of the study. Remember, anything you say or information you share will not have your name included, so your identity will remain anonymous. Your teachers, principal, and parents will not see the answers you gave or the information you provided.

***Do you have to be in the study?***

You do not have to be in the study. Also remember, if you decide to participate in the study but later change your mind, you can chose to leave and refuse to participate even if your parents have said yes.

**Appendix G Continued:**

***Do you have any questions?***

You can ask questions at any time. You can talk to me or you can talk to someone else at any time during the study. Here is my telephone number and email if you need to reach me.

Vicki Rameker \_\_\_\_\_

**IF YOU WANT TO PARTICIPATE IN THE STUDY, PLEASE PRINT AND SIGN YOUR NAME ON THE LINES BELOW:**

Your name (Printed): \_\_\_\_\_

Your name (Signed): \_\_\_\_\_

Today's Date: \_\_\_\_\_



**Appendix H: Demographic Coding Sheet****Demographic Data Coding Sheet: Independent Variables****RESPONDENT'S AGE (AGE)**

7=7 years old  
8=8 years old  
9=9 years old  
10=10 years old  
11=11 years old  
12=12 years old  
13=13 years old  
14=14 years old

**RESPONDENT'S GRADE (GRADE)**

3=3rd Grade  
4=4th Grade  
5=5th Grade  
6=6th Grade  
7=7th Grade  
8=8th Grade

**GENDER**

Dum\_1: Male (0)  
Dum\_2: Female (1)

**NATIONALITY/ GEOGRAPHIC REGION (NATIONALITY)**

DUM\_1: Asia (0,1)  
DUM\_2: Europe (0,1)  
DUM\_3: Africa (0,1)  
DUM\_4: Central/South America (0,1)

**NUMBER OF INTERNATIONAL SCHOOLS ATTENDED INCLUDING SAS  
(# OF SCHOOLS)**

1 = 1 school  
2 = 2 schools  
3 = 3 schools  
4 = 4 schools  
Etc.

**NUMBER OF SIBLINGS (# OF SIBLINGS)**

0 = 0 sibling  
1 = 1 siblings  
2 = 2 siblings  
3 = 3 siblings  
4 = 4 siblings  
Etc.

**Appendix H Continued:****NUMBER OF COUNTRIES LIVED IN THE PAST 3 YEARS INCLUDING SINGAPORE (# OF COUNTRIES)**

0 = 0 move the past three years

1 = 1 moves the past three years

2 = 2 moves the past three years

3 = 3 moves the past three years

Etc.

**NUMBER OF YEARS LIVING OVERSEAS INCLUDING SINGAPORE (# OF YEARS OVERSEAS)**

1=1 year

2=2 years

3=3 years

4=4 years

Etc.

**FREQUENCY, ON AVERAGE, AT LEAST ONE PARENT IS AWAY FROM HOME DUE TO WORK OBLIGATIONS (PARENT'S AWAY)**

0= 0-2 days per month

1= 3-5 days per month

2= 6-10 days per month

3= 10+ days per month

**PARENT'S MARITAL STATUS (DIVORCE)**

Dum\_1: No (0)

Dum\_2: Yes (1)

**\*Labels in brackets are the SPSS names that correspond with the demographic data.**

**Appendix I: Teacher's Instructions****TEACHER'S INSTRUCTIONS**

**(To be read to students when administering the research instruments)**

**Homeroom Teacher:** Prior to administration of the Child's Perception of Resilience Checklist and Demographic Form, ensure that each student is seated in a way that maintains a sense of privacy (i.e. place a desk or space between students)

**Please read the following to participating students:** *Today, you are going to be answering some questions about yourself. None of the information you give today will ask for your name or any other identifiable information.*

**Homeroom Teacher:** Distribute the Child's Perception of Resilience Checklist and Demographic Form to each student participating in the study.

**Please read the following to participating students:** *Please start with the Demographic Form first. Fill out the following information on the Demographic Form to the best of your knowledge: Gender (male / female), Age, Country of Passport, Years at SAS, and Number of Schools Attended etc. When you have finished with this please place your pencil on top of your Demographic Form so that I know that you have completed the first page. Do not go on to the next page until I have instructed you to do so.*

**Please read the following to participating students:** *"You are now ready to begin the Child's Perception of Resilience Checklist. Read each statement carefully and circle one of the options that describes you the best. Please try to answer all of the questions. There are no incorrect answers. If you have any questions, raise your hand and I will come around to help you. When you finish, bring your packet to the front of the room, place it in the large envelope, and return to your seat. You may read or work quietly until the rest of the students finish.*

**Homeroom Teacher:** Please ensure that each participating student is on task and be available to help clarify any questions they may have. The entire exercise should take about 15-20 minutes to complete.



### Appendix J: Complete Definition and Coded Names of Demographics Variables

INDEPENDENT VARIABLE (SPSS NAME)	DEFINITION
NATIONALITY (nation)	Participant's passport country(s)
DIVORCE (divorce)	Marital status of the participant's parents
AGE (age)	Participant's age
GRADE (grade)	Participant's grade
GENDER (gender)	Participant's gender
NUMBER OF SCHOOLS (nschl)	Number of international schools the participant has attended including SAS
NUMBER OF SIBLINGS (nsib)	Number of siblings the participant has
NUMBER OF COUNTRIES (n.countr)	Number of countries the participant has lived in the past three years including Singapore
NUMBER YEARS OVERSEAS (nyrs)	Number of years the participant has lived overseas including Singapore
PARENTS AWAY (parents)	Average number of days/month one or both of the participant's parents are away from home

Appendix K: Raw Data of Descriptive Statistics

Raw Data Descriptive Statistics

Dependent Variables:

**CHECKLIST STATEMENT #1**

	Frequency	Percent
Agree	502	80.2
Somewhat Agree	107	17.1
Neutral	16	2.6
Disagree	1	.2
Total	626	100.0

**CHECKLIST STATEMENT #2**

	Frequency	Percent
Agree	376	60.1
Somewhat Agree	65	10.4
Neutral	76	12.1
Somewhat Disagree	72	11.5
Disagree	37	5.9
Total	626	100.0

**CHECKLIST STATEMENT #3**

	Frequency	Percent
Agree	505	80.7
Somewhat Agree	87	13.9
Neutral	20	3.2
Somewhat Disagree	6	1.0
Disagree	8	1.3
Total	626	100.0

**CHECKLIST STATEMENT #4**

	Frequency	Percent
Agree	354	56.5
Somewhat Agree	47	7.5
Neutral	66	10.5
Somewhat Disagree	89	14.2
Disagree	70	11.2
Total	626	100.0

Appendix K Continued:

CHECKLIST STATEMENT #5

	Frequency	Percent
Agree	308	49.2
Somewhat Agree	82	13.1
Neutral	65	10.4
Somewhat Disagree	64	10.2
Disagree	107	17.1
Total	626	100.0

CHECKLIST STATEMENT #6

	Frequency	Percent
Agree	411	65.7
Somewhat Agree	82	13.1
Neutral	73	11.7
Somewhat Disagree	30	4.8
Disagree	30	4.8
Total	626	100.0

CHECKLIST STATEMENT #7

	Frequency	Percent
Agree	435	69.5
Somewhat Agree	90	14.4
Neutral	48	7.7
Somewhat Disagree	30	4.8
Disagree	23	3.7
Total	626	100.0

CHECKLIST STATEMENT #8

	Frequency	Percent
Agree	451	72.0
Somewhat Agree	71	11.3
Neutral	66	10.5
Somewhat Disagree	23	3.7
Disagree	15	2.4
Total	626	100.0



Appendix K Continued:

CHECKLIST STATEMENT # 9

	Frequency	Percent
Agree	443	70.8
Somewhat Agree	70	11.2
Neutral	55	8.8
Somewhat Disagree	31	5.0
Disagree	27	4.3
Total	626	100.0

Independent Variables:

AGE

	Frequency	Percent
7 years old	1	.2
8 years old	61	9.7
9 years old	91	14.5
10 years old	110	17.6
11 years old	116	18.5
12 years old	105	16.8
13 years old	107	17.1
14 years old	34	5.4
15	1	.2
Total	626	100.0

GRADE

	Frequency	Percent
3rd grade	96	15.3
4th grade	106	16.9
5th grade	105	16.8
6th grade	104	16.6
7th grade	109	17.4
8th grade	106	16.9
Total	626	100.0

Appendix K Continued:

GENDER

	Frequency	Percent
Male	298	47.6
Female	328	52.4
Total	626	100.0

NATIONALITY

	Frequency	Percent
North America	442	70.6
Asia	169	27.0
Europe	13	2.1
Africa	2	.3
Total	626	100.0

NUMBER OF INTERNATIONAL SCHOOL

	Frequency	Percent
1	23	3.7
2	132	21.1
3	197	31.5
4	142	22.7
5	79	12.6
6	32	5.1
7	18	2.9
8	2	.3
9	1	.2
Total	626	100.0

NUMBER OF SIBLINGS

	Frequency	Percent
0	46	7.3
1	318	50.8
2	179	28.6
3	58	9.3
4	9	1.4
5	14	2.2
6	2	.3
Total	626	100.0

Appendix K Continued:

NUMBER OF COUNTRIES LIVED IN

	Frequency	Percent
1	228	36.4
1	1	.2
2	316	50.5
3	57	9.1
3	1	.2
4	8	1.3
5	10	1.6
6	1	.2
8	3	.5
9	1	.2
Total	626	100.0

AVERAGE NUMBER OF DAYS PARENTS AWAY A MONTH

	Frequency	Percent
0-2 days	144	23.0
3-5 days	149	23.8
6-10 days	154	24.6
more than 10 days	179	28.6
Total	626	100.0

DIVORCE

	Frequency	Percent
Not Divorced Parents	605	96.6
Divorced Parents	21	3.4
Total	626	100.0



Appendix L: Collapsed Data of Descriptive Statistics

Collapse Data Descriptive Statistics

Dependent Variables:

Time Parents Are Away

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 0-2 days	144	23.0	23.0	23.0
	2 3-5 days	149	23.8	23.8	46.8
	3 6-10 days	154	24.6	24.6	71.4
	4 10+ days	179	28.6	28.6	100.0
	Total	626	100.0	100.0	

Parents Divorced

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Married	605	96.6	96.6	96.6
	2 Divorced	21	3.4	3.4	100.0
	Total	626	100.0	100.0	

Respondents Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 7-9	153	24.4	24.4	24.4
	2 10	110	17.6	17.6	42.0
	3 11	116	18.5	18.5	60.5
	4 12	105	16.8	16.8	77.3
	5 13	107	17.1	17.1	94.4
	6 14-15	35	5.6	5.6	100.0
	Total	626	100.0	100.0	

Grade Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 3	96	15.3	15.3	15.3
	2 4	106	16.9	16.9	32.3
	3 5	105	16.8	16.8	49.0
	4 6	104	16.6	16.6	65.7
	5 7	109	17.4	17.4	83.1
	6 8	106	16.9	16.9	100.0
	Total	626	100.0	100.0	

Appendix L Continued:

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Male	298	47.6	47.6	47.6
	2 Female	328	52.4	52.4	100.0
	Total	626	100.0	100.0	

Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 North America	442	70.6	72.3	72.3
	2 Asia	169	27.0	27.7	100.0
	Total	611	97.6	100.0	
Missing	9	15	2.4		
Total		626	100.0		

Number of Schools Attended

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 1-2	155	24.8	24.8	24.8
	2 3	197	31.5	31.5	56.2
	3 4	142	22.7	22.7	78.9
	4 5-9	132	21.1	21.1	100.0
	Total	626	100.0	100.0	

Number of Years Overseas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 1-2	142	22.7	22.7	22.7
	2 3-6	202	32.3	32.3	55.0
	3 7-9	147	23.5	23.5	78.4
	4 10-14	135	21.6	21.6	100.0
	Total	626	100.0	100.0	

Appendix L Continued:

Number of Siblings

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 0	46	7.3	7.3	7.3
2 1	318	50.8	50.8	58.1
3 2	179	28.6	28.6	86.7
4 3-6	83	13.3	13.3	100.0
Total	626	100.0	100.0	

Number of Countries Lived In

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 1	229	36.6	36.6	36.6
2 2	316	50.5	50.5	87.1
3 3 +	81	12.9	12.9	100.0
Total	626	100.0	100.0	

Dependent Variables:

Resiliency @ 3 Levels

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 A Not Resilient	315	50.3	50.3	50.3
2 B Resilient	144	23.0	23.0	73.3
3 C Highly Resilient	167	26.7	26.7	100.0
Total	626	100.0	100.0	

Resiliency @ 2 Levels

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 A Not Resilient	315	50.3	50.3	50.3
2 B Resilient	311	49.7	49.7	100.0
Total	626	100.0	100.0	



**Appendix M: Recoded Demographics Data Coding Sheet: Independent Variables**

**Recoded Demographic Data Coding Sheet: Independent Variables**

**AGE**

- 1=7-9 years old
- 2=10 years old
- 3=11 years old
- 4=12 years old
- 5=13 years old
- 6=14-15 years old

**GRADE**

- 1=3rd Grade
- 2=4th Grade
- 3=5th Grade
- 4=6th Grade
- 5=7th Grade
- 6=8th Grade

**GENDER**

- 1=Male
- 2=Female

**NATIONALITY/ GEOGRAPHIC REGION**

- 1=North America
- 2=Asia
- Missing value 9=Europe & Africa

**NUMBER OF INTERNATIONAL SCHOOLS ATTENDED INCLUDING SAS**

- 1 = 1-2 schools
- 2 = 3 schools
- 3 = 4 schools
- 4 = 5-9 schools

**NUMBER OF SIBLINGS**

- 1 = 0 sibling
- 2 = 1 siblings
- 3 = 2 siblings
- 4 = 3-6 siblings

**NUMBER OF COUNTRIES LIVED IN THE PAST 3 YEARS INCLUDING SINGAPORE**

- 1 = 1 country
- 2 = 2 countries
- 3 = 3+ countries

**Appendix M Continued:**

**NUMBER OF YEARS LIVING OVERSEAS INCLUDING SINGAPORE**

- 1=1-2 years
- 2=3-6 years
- 3=4-7 years
- 4=10-14 years

**FREQUENCY, ON AVERAGE, AT LEAST ONE PARENT IS AWAY FROM HOME DUE TO WORK OBLIGATIONS**

- 1=0-2 days per month
- 2=3-5 days per month
- 3=6-10 days per month
- 4=10+ days per month

**PARENTAL DIVORCE**

- 1= Married
- 2= Divorce

